EDGE

The **future** of **interactive** entertainment

Issue fifty **CD EDITION** October 1997 **£3.50** ®

FIFTY ISSUES ON THE CUTTING **EDGE**

E D G E



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Two of Sega's biggest new coin-ops

THE LOST WORLD
TOP SKATER

AN AUDIENCE WITH...
The creator of *Earthworm Jim* and *MDK* speaks out

DAVE PERRY (SHINY ENTERTAINMENT)

BIG IN JAPAN
A selection of videogame television ads, including N64 title *GoldenEye*, Japanese style



Edge was launched on August 19, 1993. The mission was to create a videogames magazine unlike any that had gone before it. Game-playing tips were eschewed in favour of in-depth interviews, previews often morphed into expansive development features, but above all, only the upper echelons of the videogaming art made it into print.

Edge still holds those values at the heart of its ethos, despite being 50 issues the wiser. In the early days of the magazine, 64bit and even 32bit videogaming were but far-off dreams that could be associated only with a brighter gaming future. The reality was, of course, very different. As CD-ROM became the medium to carry gaming forward, many developers lost touch with the one thing they were trying to create: entertainment.

Fortunately, this clouded vision is slowly receding, and to reflect this **Edge** has also matured in its pursuit of interactive entertainment.

This issue sees the magazine celebrating 50 issues of reporting from the leading edge of interactive entertainment. As well as casting an eye over the developments in videogaming over the past four years, **Edge** presents its second complimentary CD-ROM featuring the cream of the world's videogames in digital form, showcasing an unrivalled selection of the most promising releases of 1997.

Enjoy the issue. And here's to an exciting journey to **Edge** 100...

The **future** is almost here...

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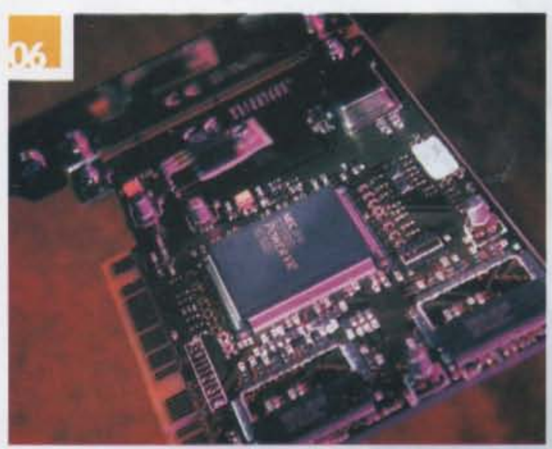

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Dance Tek Warriors



Entertainment Online



Pocket Fighter



WarGames


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Ultimate Race Pro



Ganbare Goemon



GunBullet


Broken Sword 2



Ken Kutaragi



F1 '97


Blade Runner



Round Trip RV



Legend of the Mystical Ninja


DMA Design

regulars



Cutting Edge

The latest news from the world of interactive entertainment

PROJECT X: A MARIO KILLER IN THE MAKING?



This is how VM Labs is publicising 'Project X' on its website (www.vmlabs.com). It doesn't take a genius to figure out that Jaguar designer Richard Miller hopes the technology will form the heart of a Nintendo 64-beating platform

Details have reached **Edge** of new graphics technology that could send shockwaves through the videogames industry. VM Labs is a US company working on advanced, games-related silicon – technology that is thought to be firmly at the apex of realtime visualisation.

Although no firm proof has yet come to light, **Edge** believes that at the heart of this clandestine project are two of the most talented and experienced designers in the videogames industry – hardware guru Richard Miller and renowned techno-hippie Jeff Minter.

Miller created much of the groundbreaking chip technology for the Sinclair ZX Spectrum in the early 1980s and later became head of R&D for Atari in the US, going on to create the chipset for the Jaguar. Programmer and designer Minter, meanwhile, is a resolute non-conformist and technical games wizard. The duo have worked together at Atari's US facility in the past, although Minter has just moved back to his hometown in Wales to continue work on the project.

Codenamed 'Project X', the technology is currently shrouded in secrecy, but messages on Minter's own website, 'Yak's Zoo' (www.magicnet.net/~yak/zoo.html), suggest a breakthrough: 'I have begun to explore incredible new spaces, and the possibilities just stagger me… I have only just begun to lightly tickle the surface of what this thing can do. My chin is bruised from the number of times my jaw has hit the floor. The potential for algorithmic graphics on this thing is just mind-melting. I kinda new what I was expecting but this goes way, way beyond. Talk about machines of loving grace… X is beautiful. Just beautiful.' He goes on to talk about imagery including 'a receding plain of liquid pyramids'.

Minter's penchant for the more psychedelically tinged side of life may lead some to be cynical about such musings, yet the track record of both parties is unquestionable and **Edge** hopes to have more information soon.





VM Labs founder Richard Miller is an associate of Jeff Minter (left), the llama-obsessed coder who is working with technology whose specs are believed to surpass the canned M2

VIDEOLOGIC SLASHES PRICE AS 3D CARD WAR ESCALATES

VideoLogic's PCX2 card is picking up speed in the form of reduced retail launch price of just £115 and a deal with Canadian PC card developer Matrox which is introducing the m3D card for just £79 (excluding VAT). This aggressive pricing policy is due in part to the cheaper manufacturing costs of the PowerVR chip, as well as an impressive example of the so-called 'deep pockets' support the company has from parent, NEC.

The Apocalypse 3Dx pack was originally due to be released at £159 (including a strong software bundle of *Tomb Raider*, *Wipeout 2097*, *Ultimate Race*, *Mechwarrior 2* and *Terracide*). That was in May. Since then, VideoLogic have somehow managed to shave off a significant amount. In the UK, where consumers are more price conscious than in the technology-lead US markets, this could spell trouble for the Californian-based 3Dfx company. The cheapest consumers can get a hold of the Voodoo chipset is £169.

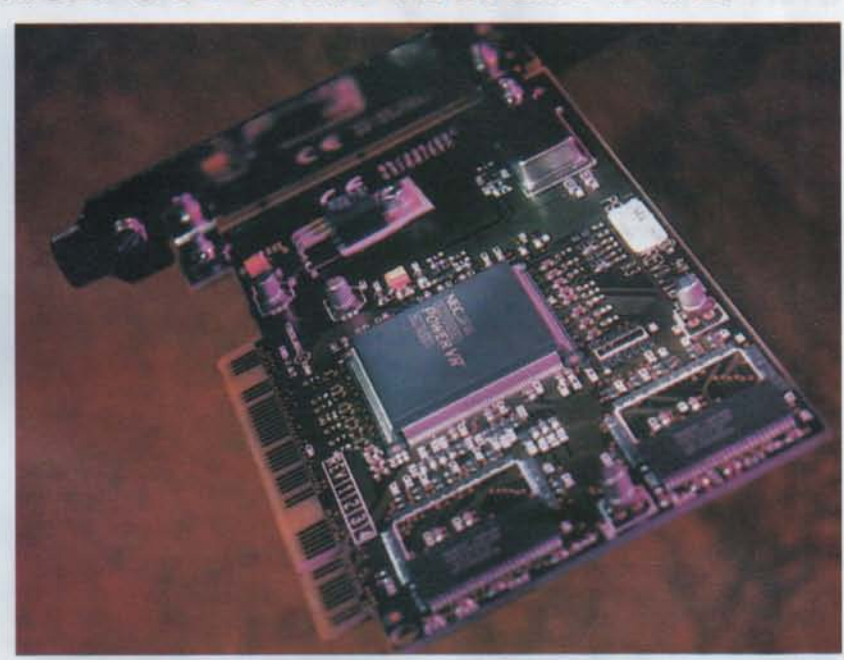
'There are two reasons why we've been able to make this cut,' explains VideoLogic's **Patrick Jubb**. 'The first is that the cost of the chips has recently dropped quite dramatically, from around $55 per chip to $35. We've always maintained that because of the way the chip is designed, it would be cheaper to produce than the competition. The second reason is purely competitive. The 3D market is a tough market, and we want to be as competitive as possible.'

As reported in **Edge** 45, VideoLogic is taking the battle directly to 3Dfx with a competitive upgrade deal which gives registered Orchid Righteous 3D and Diamond Monster 3D (both 3Dfx) adopters the chance to buy the new PCX2 at the knock-down price of just £79. For those existing PCX1 owners currently feeling a little cheated, there's an even better deal – an upgrade for just £59. However, in the face of this price war, the big question still facing PC owners is not which is the most affordable, but which has the best performance.

That's still a murky area due the difficulty of finding a level playing field to compare the two. A recent study published by Mercury, an independent analyst, used the popular WinBench test to pit the relative 3D capabilities of the chipsets against one another. The winner (which may shock even more potential early adopters) is nVidia, whose forthcoming newcomer Riva 128 technology scores marginally higher than the current Voodoo chipset. Strangely, the cheaper PCX2 card was a further five places lower than that, below the ATI Rage Pro and Number Nine's new Revolution card. It's a position that VideoLogic is understandably unhappy about. Jubb won't go into details, but claims that they will be challenging the study's findings.

'As regards the 3D WinBench tests, we have a lot of issues that we wish to take up,' he reveals. 'That test is really not a clear representation of our 3D performance today. In fact, it's about 50 per cent out.'

The winner of the Mercury benchtests, nVidia's Riva 128, scored only a few points higher than 3Dfx in the WinBench tests, but once Intel's new super-wide-bandwidth AGP technology is mass market (sometime in the second quarter of '98, Intel claims), the Riva will sprint ahead, and is designed to use the AGP bus to open up the system RAM for texture memory. What this will do, particularly on PCs with 32Mb or more, is allow for extremely hi-res texturing to complement its hugely impressive polygon-pushing capability which, according to the company's own claims, stands at around one million textured polygons/second (25 pixel triangles). No price has yet been set, but the advanced technology employed to construct the Riva chip must surely translate into extra cost for the consumer.



The PCX2 board is one of the most powerful cards on the market and has just received a substantial price cut now making it one of the most affordable around

One developer **Edge** questioned regarding the relative merits (or drawbacks) of the cards, confirmed that with PCX2, the PowerVR technology has almost caught up with 3Dfx, but agreed with Mercury in the most vital respect – that it certainly isn't better than 3Dfx when it comes to applying the technology to the games themselves. That is where things really haven't changed much in the past six months. Microsoft's Direct3D API continues to gather momentum, supposedly becoming more programmer-friendly with every build, the 3Dfx Glide API remains popular with smaller outfits looking to showcase their games (such as Emergent's *Powerslide*), and Open GL, id Software's favourite, is still winning converts for its clean routines.

As ever with the PC market, each new card seems to raise more questions than it answers, and leaves the consumer in a familiar dilemma: buy now and risk obsolescence, or hold on and miss out on the most important development in the PC's rather chequered history.





Sony hits 20 million PlayStations

Sony Computer Entertainment claims that it has manufactured a total of 20 million PlayStations for the worldwide market. The company's domestic market has received shipments amounting to a staggering 8.5 million, while in the US and Europe 6.4 million and 5.1 million units have been allocated respectively.

Sega hardware team splits

News that Sega has cancelled its decision to cooperate with 3Dfx on its next console has caused ructions within the US hardware team working on the project. As a result it's understood that several members have resigned and taken jobs elsewhere. Sega's rumoured PowerVR-based 'Dural' project progresses unaffected.

New Rare N64 title almost complete

Having just released the stunning *GoldenEye* in North America (see review, **E**48), NOA is about to unveil another Rare project at its Gamers' Summit at its Redmond HQ, taking place shortly after this issue goes to press. The title is an original, previously unseen game that has been in development for two years. More next issue.

continued

SNK LAUNCHES 64BIT COIN-OP ASSAULT

SNK's Hyper Neo-Geo system has finally received a release in Japan. The arcade coin-op technology recently debuted at select Japanese arcade sites running the system's first game, *Samurai Spirits 64*, while the second game planned, *Round Trip RV*, is expected to appear towards the end of September (both games are previewed this issue – see page 99).

The Hyper Neo-Geo 64 has been in development for three years. The company's primary focus was to create a board equally adept at handling complex 2D as it is throwing around thousands of polygons. SNK admits that this is because it still considers 2D graphics to be a central part of its design philosophy – something that will be music to the ears of its most die-hard fans.

SNK also reveals that the Hyper Neo-Geo 64 was created with expansion in mind and was designed to accommodate specific controls for different types of games. This means a variety of input/output devices (types of joysticks and controlling devices) that can be replaced or adjusted depending on what game is running on the system.

Thirdparty support is still an unknown quantity, though. In the past, very few companies have opted to develop for SNK's technology because of its limited share of the home market, as well as fierce competition in the coin-op sector. But with some potent 64bit technology on offer, a different situation could arise. All SNK is letting on is that has already received offers from various companies, with a few non-disclosed supporters having already signed on.

So far, only the two abovementioned Hyper Neo-Geo 64 titles have been revealed. *Round Trip RV*, makes use of SNK's 'Reactive Handle' – a steering wheel with impressive force-feedback – and will bring the company into an arena currently dominated by Sega, Namco and Konami. SNK claims that it opted for 'recreation vehicles' instead of the more conventional sports cars or racing cars in an attempt to do something slightly different with its first shot at a proper 3D racing game. The presence of a racing title at launch is an important commercial consideration for SNK, as the genre is the accepted way of demonstrating the performance of new technology.

One question that still remains unanswered about HNG64, however, is whether there will be a home version of the technology. While the 16bit Neo-Geo coin-op system has already done extremely well in the arcades, surviving seven years in the face of emerging technologies, the home console has always been the preserve of a tiny hardcore gaming market, too expensive and with too few games to be a massmarket proposition. In recent years, though, the company has been channelling its resources into developing software for other platforms, so it is still unclear whether the company has ambitions to span the gap between the arcade and home with a 64bit gamebox. All SNK is prepared to concede at this point is that it has been talking about such a strategy internally. **Edge** will, of course, report on any future developments for the Hyper Neo-Geo 64 as details emerge.





***Round Trip RV* boasts a 60fps update and some leisurely-paced but detailed visuals**





***Samurai Spirits 64* is the 3D beat 'em up flying the flag for Hyper Neo-Geo 64. It combines detailed visuals with combination of 2D and 3D mechanics**

Activision Buys Raven
Activision's buyout of Raven Software, the firm responsible for *Hexen*, is the latest in a series of recent expansions by the company. Raven stockholders will receive more than a million shares from Activision's common stock as part of the deal. The firm's co-founders, Brian and Steven Raffel, will continue as managers.

C&C goes 3D
A new *Command & Conquer* title is in the early stages of development, a Westwood spokesperson has confirmed. *C&C: Commando* will apparently ditch realtime strategy in favour of all-out action set within a 3D world, although no firm decisions about gameplay have yet been made by the company.

EA enters the Lion's den
Videogame publishing giant Electronic Arts has announced the signing of an exclusive deal with UK firm LionHead Studios – the new enterprise founded by the former head of Bullfrog, Peter Molyneux. The agreement gives EA sole publishing and distribution rights over forthcoming LionHead titles.

Looking Glass finds partner
After a search lasting more than a year, Looking Glass has finally announced the company it will be merging with. Intermetrics, a software firm specialising in languages and tools, will bring additional capital to the venture. The new operation is to be known as Intermetrics/Looking Glass Technologies.

JAPAN GEARS UP FOR GAMING SHOWCASES

This month, Japan's major videogame event, the Tokyo Game Show '97, will play host to hordes of eager gamers, who – if last year's affair is anything to go by – can expect hours' worth of queuing before they are able to experience the games on offer first hand.

A quick scan of the list of games announced as **Edge** went to press revealed a conspicuous lack of A-grade software. Indeed, of the 151 PlayStation titles promised, only Konami's *Metal Gear Solid*, Capcom's *Breath of Fire 3* and SquareSoft's *Parasite Eve* and *Chocobo de Battle* seem like potential hits, although **Edge** would be surprised if other major games, such as Capcom's *Resident Evil 2*, are absent.

Capcom can also boast one of the big names among the Saturn's 105 offerings, in the form of *X-Men vs Street Fighter*, with Konami's *Dracula X* and Sega's *Sonic R* completing the top trio for Sega's 32bit machine.

The most popular games at the show are likely to be strategy sims – a number of big releases have rekindled interest in the genre in Japan. Driving games, adventures and beat 'em ups will still, of course, be out in force, but publishers have jumped on the strategy bandwagon and are preparing to flood the market with new releases.

As ever, Nintendo will not be present, preferring to show its titles at Shoshinkai in November. Twenty-six N64 games are still expected to be there, though, with Kemco's *Top Gear Rally*, Hudson's *Baku Baku Bomberman* and Konami's *Hyper Olympics in Nagano 64* (see p46) likely to pull the biggest crowds – although Imagineer's *SimCity 2000* and *Virtual-Hiryu no Ken* from Culture Brain could also be worth a look.

Japan's other major videogame event this month is JAMMA '97, where arcade companies will battle it out for supremacy in the nation's fast-moving coin-op market.







Konami's Cobra board is expected to feature heavily at this year's JAMMA show. *Racing Jam* (above) and *Fighting Wu Shu* (right) should again wow the crowds

Stars of the show are expected to be Konami's impressive *Fighting Wu Shu*, running on the Cobra Board, and its even more impressive stablemate, *Racing Jam*. Both titles left onlookers speechless at the AOU show (see **E**44). At the time of writing, arcade insiders were still uncertain if Namco was preparing to unveil a rival in the form of its System 33 board.

SNK will also make an appearance with the Hyper Neo-Geo 64-based *Samurai Spirits 64* and *Round Trip RV*, and old adversaries Sega and Namco will be sparring once again, with the former's astounding *The Lost World: Jurassic Park* lightgun shooter likely to steal the show.

Next month's **Edge** will report from both events. **E**







The Tokyo Game Show is now a major event in the Japanese gaming calendar. With any luck, Capcom's *Resident Evil 2* (left) will appear in playable form



Early indications suggest a possible lack of triple-A titles such as PlayStation *Tekken 3* at this month's Tokyo Game Show

continued

Dracula eXtras
Konami will be giving away a *Castlevania* art book and music CD in the US to anyone who pre-purchases *Castlevania: Symphony of the Night*, due for release in the States on October 3. As a similar deal was operated in Japan (where the game is known as *Dracula X*), it is likely that UK gamers can expect the same treatment.

PowerVR continues US infiltration
Matrox and Gateway 2000 have both confirmed that they will be using PowerVR's PCX2 3D accelerator technology in future machines. Matrox, one of the larger video-board manufacturers in the US, is expected to announce a new PowerVR-based board shortly, while PC manufacturer Gateway 2000 will install PowerVR-based boards in systems aimed at gameplayers. While these new deals will help PowerVR's sales, pundits believe that massive market penetration will not take place until the technology is included on motherboard designs.

Quake 64 delayed
Originally planned as a singleplayer experience, *Quake 64* is now set to include a multiplayer option and, as a result, is not scheduled to be released until March '98. The game will feature 20 levels in oneplayer mode, plus three to five Deathmatch stages. Jolt pack and memory card compatibility, are also promised. Developer Midway made the decision after gauging public opinion on the subject.

continued

NO GO FOR SATURN VF3?

Conflicting information emanating from Sega of America's website has led to speculation that its current arcade beat 'em up, *Virtua Fighter 3*, might not make it to the Saturn after all.

A recent answer in the site's Q&A section stated that Sega's Model 3 coin-op fighting experience would not be coming to the 32bit console. When contacted, Sega declared that the answer to the reader's letter had been incorrect, despite the fact that responses are written by managers and product developers, which indicates that a certain amount of confusion exists within the company.

Although the game has been promised for the Saturn for some time, it now seems more likely that *Virtua Fighter 3* is being planned to showcase the capabilities of Sega's next console, and could appear alongside the latter when it appears late next year.

This speculation obviously puts a question mark over the much-touted accelerator cartridge that was planned to make the conversion possible. According to sources, the 3D accelerator cartridge – being developed by AM2's R&D labs – has now been cancelled. One of the principal reasons for the decision is believed to be the unacceptably high cost of the unit.



Confusion within Sega might indicate there is some truth in the rumours currently circulating on the Net about *VF3*'s possible cancellation – and with it, the accelerator cart that was planned to make it all possible

Better news

for Saturn owners comes with the confirmation that a four-megabyte memory cartridge will soon be made available by Sega. The device, which is due for an Autumn release in Japan, carries information that would otherwise have to be crammed into the machine's 2Mb of main RAM. It works in the same way as the existing 1Mb cart and obviates the need for excessive data retrieval and decompression – a necessary evil of memory-hungry beat 'em ups. The cartridge effectively enables programmers to free up memory space to handle vast, complex animations.



The memory add-on (above) could allow the Saturn to secure exclusive coin-op conversions

Capcom is the first thirdparty developer to pledge its support for the peripheral and planned releases such as *Street Fighter III* will use the 4Mb cartridge to minimise loading times and to retain the faithfulness to the original arcade board.

X-Men vs Street Fighter, the first game to take advantage of the new cartridge, will come bundled with it when released.



SNK's *KoF '95* was the first game to use a plug-in ROM cartridge



Capcom's *Marvel Super Heroes* (left) and *Metal Slug* (above) make use of the existing memory cart



continued

Zelda 64 to be first 256Mbit cart

Nintendo has revealed that *Legend of Zelda 64* will arrive on a 256Mbit (32Mbyte) cartridge, four times the size of *Super Mario 64*, and bigger than *Star Fox 64* (96Mbit) and *Banjo-Kazooie* (16Mbit) put together. Considering the fact that a 32Mbyte cartridge has never been developed for the mass market, **Edge** can only begin to wonder about the game's price by the time it reaches the UK. Start saving those pennies now...

Activision loses funk

The PlayStation version of *Interstate '76* will not feature a mission-based narrative, opting instead for an action-intensive experience. Activision has also announced the version will be renamed *Interstate '75*, in order to avoid confusion. It will be interesting to see how this version fares, as the narrative element of *I76* was one of its most prominent strengths.

The invasion continues

The demand for Tamagotchis hasn't subsided, with manufacturer Bandai recently reporting that domestic sales have reached the ten million mark, with shipments expected to reach 20 million units by the end of the fiscal year. Overseas exports are currently on line to reach a similar number by March 1998. UK retailers are still being flooded with requests for the bleeping cyber pets, and even major chains are finding stocks depleted.

continued

PIRATES TARGET **PC PRE-RELEASES**

Just as GT Interactive saw an unofficial demo version of *Quake* posted on the Internet before the game's release last year, Activision has recently experienced a similar occurrence with its forthcoming title, *Hexen II*.

In addition to the 12Mb shareware demo officially available from the Activision and Raven sites, an unlicensed demo of the game, similar to the company's E3 trade-only version, is believed to have been uploaded onto the Internet by a Q&A tester in the US. The demo has now been removed, and Activision says due to the shareware's early status, sales of *Hexen II* should not be affected.

Ben Le Rougetel, from Activision's public relations section, appreciates players' wish to see as much of a new game as possible, but says that in the long run, it's these same people who suffer. 'It's like opening all of your Christmas presents a week early, wrapping them up again, and then acting surprised when Christmas Day comes.

'Meeting the enemies for the first time and seeing how they move is one of the enjoyable things when getting into a new game, particularly in this type of game where there's exploration to be done. If you've already seen part of the level and know some of the secret doors, it just takes some of the excitement away from someone who would have played the game for the first time.'

Such an act affects more than just the consumers and, depending on the advancement of the illegal version, could prove disastrous for a publisher. As a precaution, no further UK videogame magazines will get a review copy until the game is officially released.

'Every [journalist] should have it by now,' explains Le Rougetel. 'It's frustrating and annoying [because] I want people to be able to review it and at the moment that's thwarted it.'

Increasingly, major titles are becoming victims of Internet-distributed piracy. Although some form of *Tomb Raider 2* has also appeared on the Net, Core declined to comment, except to confirm that the illegal demo was no longer available.

In a related story, the European Leisure Software Publishers Association (ELSPA) crime unit has seized pirated computer software worth over £20 million in raids during the first six months of 1997, representing an increase of more than 50 per cent over the same period last year.

Major raids in Essex, Aberdeen and Glasgow have resulted in the closure of two CD-ROM-writing factories and a mail order company which imported counterfeit titles.

So far, this year has seen a 70 per cent increase in piracy reports, leading to 39 successful prosecutions with a further 30 cases due to appear in court. E



GT Interactive must be hoping demos of *Prey* do not appear on the Net as they did for *Quake*



Rumours suggest that a demo of *Tomb Raider 2* is available on the Internet. If the version was advanced, it could have proved financially disastrous for Core



Although too early to cause the company financial loss, Activision has warned that players downloading *Hexen II* code are limiting their enjoyment of the final product

Origin restricts Ultima userbase

The initial launch of *Ultima Online* is likely to be limited to 50,000 units for the first three or four weeks of release. It's thought the restricted launch allows Origin to ensure that all players can be supported by its systems. The new players will replace the beta testers that are currently online, thereby using the system architecture that is already in place. According to Origin, it has recently set a record when 2,850 beta testers joined in one simultaneous session – the largest number of people together in the same virtual world at the same time so far.

Lara's not finished

Unfinished Business, the add-on pack for the PC version of *Tomb Raider*, will not be available from stores as originally planned. The new levels would have kept Ms Croft in the limelight, but continued media interest in her antics has resulted in Eidos deciding a retail release wasn't necessary. Instead, PC owners will be able to get the three new levels from the publisher later on this year, free of charge.

Namco's Chinese interest

Namco has followed Sega's move and has recently opened Namco Entertainment World in Guilin, featuring 97 coin-op machines and funfair-style rides. The Japanese company is planning further expansion with arcades in Beijing, Qingdao, and Changsha in 1998. Namco also plans to expand its local arcade production base.

FINAL FANTASY VII SET FOR RECORD SALES



There appears to be almost as much anticipation for *Final Fantasy VII* in the US as there was in Japan



SquareSoft's expansive RPG launches in the UK in early December in time for the Christmas sales boom

Sony Computer Entertainment America has predicted that *Final Fantasy VII*'s US launch will be the largest in videogame history. The announcement is based on the number of pre-orders the company has received from retailers so far, said to be in the 'hundreds of thousands'. The ship-out figure is believed to be 750,000, beating the 450,000 retailer pre-orders of Nintendo's *Star Fox 64*, and setting a new record in the process.

Most shops have been pre-selling the game since August 1, as part of a massive programme instituted by SCEA to ensure players are not left empty-handed when the game is released on September 7. As an incentive, players who purchase SquareSoft's product from retail outlets participating in the programme will receive a limited edition T-shirt.

Major US game retailer Electronics Boutique has announced it expects *Final Fantasy VII* to easily become the largest-selling videogame in the chain's history.

SCEA is backing the national pre-sale programme with a multi-million dollar marketing campaign which includes three dedicated television spots, massive print advertising, major national promotions, comprehensive public relations and dedicated in-store point-of-purchase displays.

As the latest instalment in the highly successful *Final Fantasy* series, SquareSoft's epic title is no stranger to breaking records, having already sold an unprecedented 2.5 million copies in just three days when the game launched in Japan earlier this year, with the current figure said to be in the region of 3.5 million units.

alkback

An irregular look inside the heads of some of the world's leading videogame designers

Q: What can you boast about in *Legend of Zelda 64*?

Shigeru Miyamoto: I've always tried to create places in videogames that don't exist in the real world. You might even feel like you've actually been there. And these thoughts, feelings, find a shape, one by one. You can get into the game if you turn off the music. And if you turn off the music, you might start crying because of fear – dungeons contain lots of traps and are really scary. You might want to curse the person who created the dungeon. Maybe you will have a nightmare?

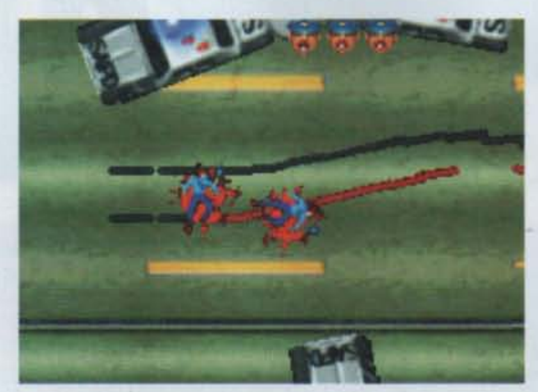
Q: What about special effects in the game?

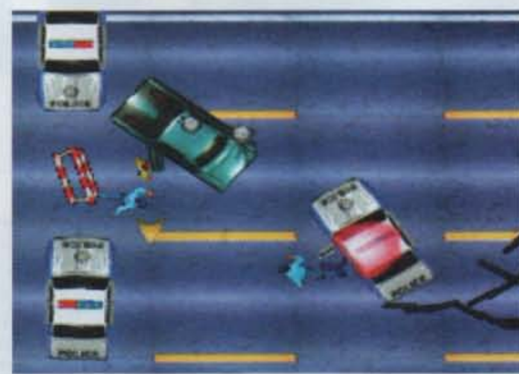
SM: If you walk in 3D, you can see a horse in the distance, then you can change the camera angle and ride the horse and run... Maybe you will have fun just seeing the horse coming towards you.

REPORT LINKS VIOLENCE WITH ONSCREEN ACTION

A Home Office report that claims onscreen violence does have an effect on crime is destined to cause possible ructions in the games industry if the initial findings are made applicable to videogames. 'The Effects of Violence on Young Offenders' is due to be released in October and is the work of a Birmingham University team which studied the behaviour of 120 young criminals. Full details of the report are not yet available and it still isn't known what emphasis, if any, has been placed on videogames. Despite this, games industry pundits are already watching cautiously in preparation for a tightening up of current legislation relating to onscreen violence. If the findings are conclusive and damaging, it's expected that the British Board of Film Classification (which covers all violent videogames) will become answerable to the Home Office.

The news comes at a untimely juncture, as DMA Design's *Grand Theft Auto* (see p50) has already attracted the attention of exploitative tabloid hacks seeking to stir up the next national public outcry. If the morality police are unsuccessful, however, and fail in their mission to keep *GTA* from hitting the streets in late November, such publicity shouldn't harm sales of DMA's tour de force...





It's currently unclear whether or not videogames fall within the findings of this new Home Office report, but titles like DMA Design's sparkling *Grand Theft Auto*, which features purposefully mature content, will be under scrutiny if it does

PC ENTERS SIMS SCENE

Primary Image, a company specialising in PC-based image generation for the training and simulation industry, has announced the launch of Piranha, a powerful new image generator for the PC.

Unlike current high-end IG solutions, Piranha is a fully scaleable system, meaning the performance of individual applications can be increased quickly and easily, keeping development costs low. The system is also based around an open architecture, supporting multiple software platforms such as OpenGL and MultiGen OpenFlight Format.

Piranha offers fullscreen anti-aliasing and calligraphic light points – essential ingredients for the realism of simulation applications, as well as detail texture, trilinear interpolation, and true-texture transparency.

Alan Davenport, the company's CEO, is understandably confident in his product. 'Piranha is an innovative and revolutionary image generation solution that offers extraordinary performance capabilities,' he states. 'There has never been another system to match Piranha for the quality of images that are produced, and for the price at which they are created.'

Primary Image is currently demonstrating Piranha's capabilities to the European and the US simulation and training community.







UK simulation specialist Primary Image develops high-end PC-based image generation technology. Its latest board, Piranha, is capable of displaying these complex scenes in realtime, rivalling SGI performance

CD2 CONTENTS

Prescreen
Banjo-Kazooie (N64)
Conker's Quest (N64)
F-Zero 64 (N64)
GoldenEye (N64)
Hybrid Heaven (N64)
Lamborghini 64 (N64)
Legend of Zelda 64 (N64)
San Francisco Rush (N64)
Tetrisphere (N64)
Yoshi's Story (N64)
Colony Wars (PlayStation)
Fighting Force (PlayStation)
Masters of Teras Kasi (PlayStation)
Resident Evil 2 (PlayStation)
Shadow Master (PlayStation)
Blade Runner (PC)
G-Police (PC)
Grand Theft Auto (PC)
Powerslide (PC)
Spec Ops (PC)
Tanktics (PC
Tomb Raider 2 (PC)
Panzer Dragoon Saga (Saturn)
Quake (Saturn)
Sega Touring Car (Saturn)
Sonic R (Saturn)

Arcadeview
The Lost World
Top Skater

An audience with...
Dave Perry of Shiny Entertainment talks to Edge about his latest projects

Big in Japan
A selection of videogame advertisements from the weird and not entirely well-adjusted world of Japanese television



CD2 is **Edge**'s second complimentary preview disc containing a wide selection of upcoming titles.

In order to keep the video quality as high as possible, **CD2** uses Eidos' Escape digital video codec to provide high resolution footage at 25fps. This means that to run the CD you will need at least a Pentium 90 with 16Mb of RAM, a quad-speed drive and Windows 95. **Edge** recommends a machine with 32Mb of RAM and an 8-speed CD drive for optimum performance. A Macintosh version of the codec was not complete at the time of production.

To run the CD you will first need to set your PC to 16bit colour. To do this, click on the Windows 95 desktop to bring up the 'display properties' window. Now go to 'settings' in the menu bar, choose 16bit colour and then reboot your machine.

Escape employs Microsoft's *Direct X* libraries and anyone without *Direct X* installed on their machine will need to boot up the CD from the desktop (by clicking on the edge.exe file in the CD folder) and choose to install Direct X. Then, after rebooting your machine with **CD2**, click on 'already installed' on the corresponding black screens thereafter and the CD interface will appear.

Please note that some previews are early and lack sound. The **Edge** cam footage was taken from video camera at the Atlanta E3 show and tapes of these games are not yet available.









On the CD (from left): Rare's *Conker's Quest*, Nintendo's *Legend of Zelda 64*, and Shiny Entertainment's MD Dave Perry

(out there)

REPORTAGE FROM THE PERIPHERY OF THE VIDEOGAMES INDUSTRY

Tekken the piss, surely...

It's usually the case for videogames to imitate life, rather than the other way around, hence the abundance of sports games and film licences.

There have been instances when the opposite has occurred, but they have mostly limited themselves to typically dreary and shallow Hollywood adaptations such as *Street Fighter*, *Mortal Kombat*, and *Double Dragon*.

Imagine **Edge**'s surprise, then, when confronted with a group of dancers who have incorporated moves from Namco's classic beat 'em up, *Tekken*, into their routine.

'Dance Tek Warriors' is the Union Dance Company's current programme, and brings together 'streetwise contemporary dance' featuring martial arts, by choreographers from London and New York, with projected imagery from the PlayStation version of *Tekken*. The musical backdrop is a mish-mash of jazz, hip-hop, classical, and Afro-Asian electro.

According to troupe's press release, Dance Tek Warriors is all about 'fearless physicality'. **Edge** doesn't dispute this fact for a minute – one must indeed possess supreme courage to tour the country sporting such attire, and the moves are certainly energetic, if not quite up to the standard of their motion-captured polygonal counterparts. But surely there are more significant cultural reference points with which to draw inspiration for modern dance? At least *Tekken 3* would have been more timely...

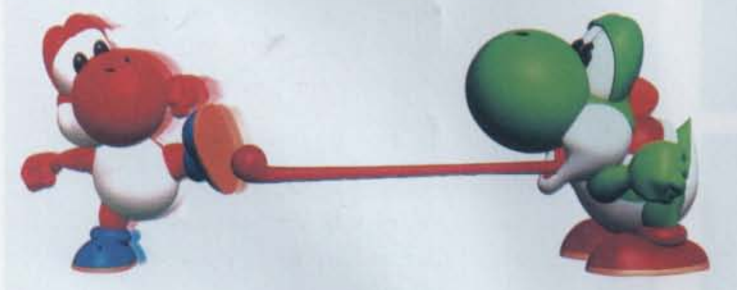


Nintendo bans the rent boys

Nintendo's no-nonsense attitude will be familiar to all of **Edge**'s regular readers, and gamers might also remember the company's firm clamp down on retailers renting SNES games in the carefree days of the 16bit era. At the time, the Big N was forced to rethink its strategy following the results of the MMC report in Spring 1995 which stated that consumers should be able to try highly priced software before buying.

However, Nintendo certainly hasn't got where it is today by backing down and letting bygones just be – the Japanese games giant has begun to taken action against retailers 'illegally' renting N64 software. As proof of Nintendo's commonly preceived not-so-high regard for the UK market (or European, for that matter), it doesn't operate directly in the UK, instead relying on its distributor, THE Games, to do the legwork. As a result, the distributor has issued cease-and-desist notices to the dealers involved, claiming that the rental of games without payment of a royalty to the copyright owner is a direct contravention of UK copyright legislation.

That may be so, but cynics would argue that, with the diminutive UK catalogue of games THE Games currently has out there on the shelves, the N64 needs all the exposure it can get.







Fish out of water



While fish tanks can add a vibrant quality to the dullest of rooms, nuances such as feeding the little buggers and cleaning the tank soon bring potential fish lovers back to the quick-fix reality of '90s society. Obviously deeply troubled by the current situation, NEC has announced its Fish Club virtual aquarium in the hope of solving the problem.

The free-standing unit comprises a large high-resolution screen and laserdisc technology to display vivid images of living, swimming fish. Users are able to choose from a wide selection exotic specimen such as Yellowfin Horse Mackerel, Super Red Arowana, and Yamabuki Ougon, a factor certain to get fish lovers very excited indeed.

According to its makers, Fish Club removes the stress of setting up and maintaining a real aquarium. A fair point, although the £11,000 loan needed to buy the thing might well counteract any relaxing qualities it might offer...

Where are they now?

NAME: **ROB HUBBARD**
FAMOUS WORK: **C64/AMIGA GAME MUSIC**



Back when the C64 was a state-of-the-art platform, artists writing music for the machine had to work within the constraints of only four channels. Often, however, such restrictions encouraged creativity, and never more so than in the case of Rob Hubbard, responsible for over 300 8bit and 16bit soundtracks. Many of his works, including *Sanxion* (his personal favourite), *Commando* and *Knuckle Busters* rank among the finest examples of videogame music in history, and are rarely surpassed in their atmosphere and catchiness by even today's glossy, CD-streamed efforts. As Hubbard says, 'The old days were really about pioneering and experimentation with both the technology and the art of making interactive products. The industry has now basically matured to one of mainstream entertainment'.

In the late '80s, perhaps sensing that this change in the industry was taking place, Hubbard moved out to the States and took up a job with EA. 'I moved mainly because of my desire to learn what was going on in Silicon Valley,' he explains. 'Trip was talking about optical technology and what impact it would have back then – he was a real visionary. Also, EA was doing some very different products such as *Deluxe Paint*, *Deluxe Music*, etc.'

His job at EA seems to be something of an eclectic cross between music supervisor and audio technology guru. In fact, listening to him talk, it sounds as though he's doing everything concerned with music except actually making it. 'These days I'm involved with leading-edge technology on both the PC and consoles. I'm heavily involved with the IASIG [Interactive Audio Special Interest Group – www.iasig.org], which is part of the MIDI Manufactures Association'. The IASIG is essentially a meeting place for MIDI musicians, but it was also responsible for developing the new Downloadable sounds specification – an advanced audio standard for multimedia hardware.

But the question stands, is he still making videogame music, or has he left it all behind? The answer is thankfully a positive one: 'I actually did write some of the interactive music for *Nuclear Strike*. I believe very strongly that, when combined with the new breed of GS or XG synth engines (which sound great), interactive music is the way to go for future games.'

VIDEOGAMES ON THE EDGE

The games – old, new, whatever – responsible for most lost working hours in Edge's 50-issue existence

Hyper Sports (arcade)
Konami's multiplayer classic, played in the **Edge** office via a Supergun, proved so durable because of the desire to set new world records. Until some nobber spilt coffee on it, anyway.

Super Mario 64 (Nintendo 64)
The amount of attention this game received from non-**Edge** staff when it arrived from Japan almost forced a lock to be fitted to the office door. The only 10/10 game in **Edge**.

Ridge Racer (PlayStation)
It was perhaps the fact that *Ridge Racer* was the first demonstration of Sony's console as much as it was a fine game in its own right that made it so popular. A classic driving title.

Puzzle Bobble (Neo Geo)
A twoplayer game that was *never* short of willing participants, whether it was editorial staff, art staff or even the sandwich bloke. Quick-thinking strategy gaming at its finest.

Tekken (PlayStation)
In the face of much competition, Namco's game proved to be **Edge**'s favourite beat 'em up.

EDGE SINGLES OUT THE WINNERS AND LOSERS IN THE INTERMINABLE BATTLE FOR VIDEOGAME CRED FOUGHT OVER 50 ISSUES

(game on)

Sony's **PlayStation**, for hitting the market at the right time, with the right software, and the right attitude.

Nintendo, for maintaining a standard of software that remains untouched by any other company, and embracing the 3D revolution with startling mastery, immediately raising the stakes.

The evolution of **games for adults** (see this month's *Grand Theft Auto*, page 50), which has seen publishers become unafraid to launch titles that aren't drenched with garish, cutesy visuals, and furthering the maturity of the videogaming industry in doing so.

Retro gaming, whose existence has no doubt given many developers the inspiration to look back to a time when polygons were the stuff of Maths lessons and gameplay was king.

The UK software development community, for producing some of the most innovative games in the world.

Poor old **Atari**. In 1993 the original masters of the videogame were ideally placed to recapture the essence of old-school gaming. But instead it launched a dodgy looking console and some pitiful games. Oh, and not forgetting a CD-ROM that looked like a crapper.

Poor old **3DO**. Trip Hawkins' global ideology was worthy of the noblest visionaries, but a combination of a wary marketplace and a collective lack of game design skills ensured its console and games were consigned to the scrapheap.

The **'interactive movie'**, once thought by some to be the future of videogaming, but rapidly rumbled as being the most all-gong-and-no-dinner experience ever conceived.

Rise of the Robots, whose hype-to-quality ratio stank, frankly.

The **game-buying public** who chose to buy *Rise of the Robots*, ignoring the advice of the games press. *When* will they learn?

(game over)

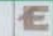
nuMedia

A meeting point for media capitalising on the digital entertainment revolution

in association with



No 18

CD-ROM 

You Don't Know Jack

Taking the now ubiquitous pub trivia machine and transferring the same format to the PC and Mac may seem like a strange idea, but that's exactly what US developer Berkeley systems has done with *You Don't Know Jack*. Here, up to four players can take part in either a 20-question quiz or a tournament, both of which require contestants to answer multiple-choice questions on a huge variety of categories. As with any TV quiz show , each player has his or her own buzzer (represented here by different letters on the keyboard) and must pounce on it as quickly as possible when the question is displayed.

This could have easily been a truly tragic concept if the developers hadn't invested a great deal of humour and invention in the project. For a start, the game features a variety of voiceovers for the questions, ranging from upper-class toffs to MTV-style videojockeys – all acted with flair end enthusiasm. Then there are the categories themselves: 'Rubik's Cube and Male Genitalia', 'War and Cheese' and 'Reformed Alcoholics and their Skin Complaints' are standout examples, but there's plenty more to keep players amused. Also interesting are the deviations from standard multiple-choice delivery. A notable example is the section where players are shown a series of names over a 30-second period and have to guess whether these are Old Testament prophets or characters from 'The Power Rangers'. Believe it or not, this is tougher than it sounds.

Although, the 'in yer face' presentation may grate after repeated plays, this is a fine multiplayer diversion and an amusing one player experience. One might even style it as the nearest any sane person would want to get to appearing on 'Family Fortunes'.





- Developed by Berkeley Systems
- £30
- Published by BMG
- PC/Mac

D-Rom

Regular readers of 'DJ' magazine may have come across a demo version of this, the first instalment of what Recognition aims to make a monthly digital magazine devoted to dance music. It's a laudable aim – and the price isn't too out of tune with what you'd expect to pay for a paper magazine.

D-Rom looks fine, with a futuristic interface and plenty of cool visuals. It's split into House, Techno, Garage and Abstract rooms, each of which contains short samples of upcoming tracks, together with a smattering of background information on the artist and videos, where appropriate. It also boasts a demo version of the excellent *Mixman Spin Control* virtual mixer program (which will leave you gagging for the full version). But, at least in the first issue, the track listing is rather eccentric, concentrating on a small number of favoured labels rather than killer tunes. Technoheads will probably laugh when they find Tin Tin Out's Euro-cheese in the techno section and, generally, none of the tracks (bar Coccoluto's 'Belo Horizonti') come anywhere near Age of Love's Age of Love which first appeared in 1990.

D-Rom is a great idea, and **Edge** sincerely hopes that it thrives. But that will only happen if future editions get the music right.



- Developed by Recognition
- £5
- Published by Fast Forward
- PC/Mac

Music 

Way Out West
Way Out West
Deconstruction



With an album brimming with tracks like 'Ajare', 'The Gift', and 'Blue' – each of which has already achieved classic status in clubland – Way Out West can hardly fail. But while these familiar cuts provide the best moments here, the DJ duo have been anything but complacent with the other tracks, displaying a genre-defying diversity that marks them out as much more than crowd-pleasing house/ trance types. Stabs at everything from dub to ambient may not please all the fans, but it should ensure that Way Out West don't become another single-driven dancefloor casualty.

Let's Get Killed
David Holmes
Go! Beat



Working with Ashley Beedle under the 'Disco Evangelists' moniker, David Holmes revealed ran unmistakably cinematic obsession, a style fully refined on the magnificent flick-obsessed debut album, 'This Film's Crap, Let's Slash The Seats'. His second longplayer is no less atmospheric, but this time the lush orchestrations have been replaced by something far grittier. This is the musical accompaniment for Holmes' recent trip through New York – a stripped down, hip-hop-derived sound capturing the city's highs and lows magnificently. Not exactly easy listening, but it's the perfect soundtrack for summer in the city.

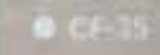
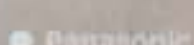
Gadgets



Panasonic notebook computer

The problem with so-called 'portable' computers is that, in truth, they're far from portable. Okay, so they might look trim in comparison with their desktop cousins, but they weigh a ton and lugging them around is far from convenient. Panasonic, a leader in notebook technology, has finally released a portable that lives up to its name – in the CF-35 range, each model only weighs two kilos (if you remove the floppy drive). They're available in 150MHz and 166MHz MMX guises, and both slimline PCs are quick enough for any of today's PC games. Here's a tip, though: invest in the £250 optional internal CD-ROM drive or you're going to have severe problems loading any software at all.



- CF-35
- £3,000
- Panasonic
- Out now

CF-35, Panasonic, Tel: 01344 853429

Fujitsu Plasmatron TV

For what seems like an age, there has been speculation about 'flat' televisions that can be hung on the wall – they always seem to be popping up in science-fiction movies. But it's taken until now for plasmatron technology to mature to a state where such devices can be built. There are a number of flat TVs on their way to the shops (though probably not your local Dixons for a while), but Fujitsu has got there first with this massive 42-inch model. The image is incredibly clear and sharp and, surprisingly, it can be viewed from just about any angle without the picture fading. But 11 grand is a lot of anyone's money, so if you haven't got very deep pockets, forget it.



- 42-inch plasmatron TV
- £11,000
- Fujitsu
- Out now

Plasmatron TV, Fujitsu, Tel: 01344 472704

AM2 Competition

Sega's legendary AM2 division has provided **Edge** with five unique club-style shirts to give away based on its forthcoming arcade racer, *Motor Raid* (**E**48). To stand a chance of winning one, answer this question and send it on a postcard marked 'AM2 Comp' to the usual **Edge** address by October 15, 1997.

What was the first coin-op produced by the AM2 division?
a) Hang On
b) Virtua Fighter
c) Virtua Racing



Kaleidoscope
Jam & Spoon
Sony



Jam & Spoon have long been revered for their seminal contributions to dance music, and their initial brace of albums ('Tripomatic Fairytales 2001' and its equally self indulgent alter ego, '2002') are both crammed with memorable offerings. Their latest, however, seems to have been consciously steered away from inventive melodica in favour of ultra-lightweight holiday pop. Imagine an album where most tracks resemble the 1993 chart hit 'Right in the Night' (the only dire track on the duo's first album). Even a stab at some mellow drum and bass can't save it.

Cafe del Mar: Cuatro
Various
Mercury Records



It seems fitting that just as the original Cafe del Mar vibe fades into memory, so do the tracks that made this series what it is. Whereas volumes one and two captured the mellow Ibizan sound perfectly by sprinkling Balaeric classics with the occasional pinch of eccentricity, this compilation contains far too many forgettable tracks. Apart from the ambient tones of Chicane's 'Sunstroke', and some samba-style musing from Karen Ramirez, this is an inoffensive compilation that retains a blandness now synonymous with the island's most exploited watering hole.

Gadgets 

Hagenuk GlobalHandy GSM mobile phone

German company Hagenuk may be new to UK consumers but it should make a splash with this unfortunately named but slick mobile phone. Look closely and you'll notice that it lacks one object common to all mobiles: an aerial. That's because the aerial is built into the body of the phone. This is good news for habitual users, because it means that all electromagnetic radiation generated by the aerial is carefully directed away from users' heads. The effects of radiation on the brain won't be understood until various longterm studies have run their course, but it's better to be safe than sorry, and this mobile has all the features you could desire. The only quibble concerns the LCD display's rather dated look, but if you can't live with that, you deserve a fried brain.

GSM phone. Hagenuk. Tel: 01784 497077



- GlobalHandy
- Hagenuk
- £20 to £70
- Available September

Books 

The First $20m is Always the Hardest

- PO: Bronson
- Secker & Warburg
- £10
- ISBN 0-436-20425-8

Silicon Valley seems at first glance to be an ideal backdrop for a novel. All that money, technology and rivalry – it should be full of opportunities. But the problem is that many of the books set in this area of California as their setting get so fixated with the gadgets that they forget the characters. Douglas Coupland's Microserfs was a notable exception (dwelling much more on the emotions of Microsoft employees than on their operating systems). 'The First $20 Million', unfortunately, isn't.

The plot is tediously formulaic, recounting the tribulations of three programmers who see an opportunity to do another Apple by designing a computer that could sell for $300.

All the usual elements are here: the nerdy programmer, the new startup, the money men in the background making deals. There's even a minor love interest to prove that these men have lives. The reader is ultimately not convinced, however, and any empathy that may have developed with the characters is swiftly destroyed by a written-by-numbers techno-plot. Nice cover, though.

In the Company of Giants

- Rama D. Jager and Rafael Ortiz
- McGraw Hill
- £18
- ISBN 0-07-032934-6

Read the majority of magazine interviews with CEOs of companies like Microsoft, Apple and Intel and they seem very clinical and pre-planned – because they are. More often than not, the press offices of each company will have scrutinised and sanitised every question in advance.

Authors Jager and Ortiz, however, have managed to bypass that cleansing process to present a refreshingly candid selection of interviews with 16 of the industry's top men. Witness semiconductor manufacturer TJ Roger explaining that he set up Cypress Semiconductor because he couldn't stand by and see his employer AMD miss so many opportunities. Then read the musings of EA founder Trip Hawkins, who has a few interesting things to say about Harvard Business School graduates. Instead of the usual PR tosh, companies, colleagues, and the industry itself are put under the microscope by interviewees who enter the affair with such gusto that it seems they have been waiting for years to say what they really think. An invaluable insight into the technology industry.

Music 

Pocket Universe
Yello
Mercury records



This, the first Yello album for years, is timely: great swathes of the dance fraternity have started to cite the band as a major influence. Boris Blank's slick, slinky and recognisable beats have always had the jump, but can he still cut it today? Off and on. 'More' is a no-messing Yello classic – wobbly but restrained acid lines, trance sensibilities and a dark but simple vocal. Elsewhere, things are patchy, but Yello's pop sensibilities mesh nicely with trancey keyboards and effects (there's even a Carl Cox collaboration) and more mellow, late-'90s breakbeats.

Big Soup
Luke Vibert





The ever-individual Vibert eschews the typical lo-fi Mo'Wax approach here: he's got a ring modulator, and he's gonna use it to moderately comic effect. He has also curbed the sometimes over-experimental d&b beats and weird structures which often characterise his outings. Instead, 'Big Soup' is all slick but engaging trip-hop beats, lush, sugary but not over-intrusive strings, dubby bass and judiciously placed analogue effects. This all adds up to a surprisingly summery mélange which is often melodic but never overtly commercial. Sometimes amusing, too.

Netscape: Welcome to Netscape

netview

EDGE'S EXAMINATION OF THE INTERNET AND ONLINE GAMING SCENE

Online Games '97 hits London café

Jupiter Communications estimates that the online games market is set to bring in an annual revenue of over $1 billion by the turn of the century. Little wonder, then, that Online Games '97, the third annual conference on networked game development, promises to be the most dynamic yet.

Running from November 4-5 at London's Café Royal, the conference will bring together some of the biggest names in online entertainment. John Taylor III, president of the Kesmai Corporation, Neil Harris of Simutronics, Shon Damron of Sony Interactive Studios America, and Colin Duffy of BT's Wireplay are just a few of the key speakers. With the market still in its infancy, very few game publishers or developers have any practical experience of creating online products that consumers are prepared to pay for. Thus Online Games '97 presents a unique opportunity to meet those early adopters who've already started and are prepared to share the fruits of their labour.

Although the conference is primarily aimed at developers seeking exposure to such experience, the subject matter of some sessions would make gamers drool. Jez San, for instance, will be discussing *Spy vs Spy*, Argonaut's eagerly awaited Internet title based on the *MAD* comic series, which is set for release in mid-1998. Considering the addictive nature of the 8bit versions, this title should have gamers who played through the '80s jamming the phone lines. As if that isn't enough, Shon Damron will be discussing *Tanarus*, Sony's first online only game, which went into beta testing earlier this year.

Perhaps most heartening, though, is the evidence that publishers are finally prepared to investigate new possibilities offered by online gaming rather than simply bolt more players on to the old models. Eric Goldberg of Crossover Technologies will highlight the need for online titles to continually evolve in order to retain gamers' interest. One area still to be exploited, he says, is tying daily real-world events into games.

Meanwhile, Dr Richard Bartle's splendidly titled Bad Ideas for Multiplayer Games is one session everyone could contribute to. Bartle stresses that since gamers can try an online game once for a fraction of the cost of a full retail game and then never return, publishers must ensure that the right game is produced from the outset. Will the benefits of online gaming never cease?

To secure a place at Online Games '97, call Miller Freeman on 0181 742 2828. Tickets for the two-day conference cost £899+VAT, which includes lunch (presumably an 'all you can eat' caviar buffet...)





Online Games '97 is aimed at raising the awareness of the potential for multiplayer gaming. *Quake* and *Planetary Raiders* (above) have already partly proved what is possible

Entertainment Online forms gaming Stratagem







***Stratagem*'s developers claim it's capable of handling over 3,000 troops in a single game**

The up-and-coming UK online games service Entertainment Online has added yet another new title to its growing roster. *Stratagem* is a multiplayer wargame which can see up to 32 players locking blades on a single battlefield.

In order to overcome the lag difficulties inherent with such a huge number of players, *Stratagem* is a turn-based game (although everyone takes their turns simultaneously). Fighting as either humans or bestial 'gobgoyles', players ascend through the ranks of *Stratagem*'s league tables by beating opponents in any of the game's 30 scenarios. These rankings can then be used to ensure that players face opponents whose mettle more closely matches their own.

Graphically, *Stratagem* is a little disappointing, with small graphics and fairly indistinguishable units. However, the game's tactical elements look interesting. Perhaps the most promising feature is the ability of human armies to enter a tight formation and fight cohesively rather then rushing opponents in a huge scrum. Formations have been sorely missed in many recent strategy games, including blockbusters like *Red Alert* and *Warcraft II*. Other intriguing features include a full magic system and a simplified resource-management component, which leaves players to concentrate on fighting. Certain scenarios also include quest missions, which make a welcome change from simply fighting until one army is left standing.



For more information on Stratagem, or any other titles provided by the E-Online service, head over to www.e-on.co.uk

BIG IN JAPAN

● THIS MONTH...
● POCKET MONSTERS
● MINI FIGHTERS
● COIN-OP HORSES

EDGE TAKES A LOOK AT THE LATEST PHENOMENON TO GRAB THE JAPANESE BY THEIR THROATS – POCKET MONSTERS. ON THE ARCADE SCENE, MEANWHILE, CAPCOM HAS RELEASED A SIMILARLY POCKET-THEMED EXPERIENCE, WHILE NAMCO ATTEMPTS TO NURTURE THE NEXT NIPPONESE WILLIE CARSON

The Pocket Monster phenomenon

It is often difficult to predict the success of certain products. For example, had any reliable pundits envisioned the Tamagotchi's economic and social success, a contract could have been taken out on its inventor before the wretched digital creatures hit the streets. **Edge** would have been more than happy to contribute a substantial sum.

And while stories of restaurant bans, Tamagotchi creches and muggings involving the egg-like beings materialised from Japan, followed by similar tales from nations as diverse as Brazil and the UK, little was heard concerning another phenomenon quietly sweeping the land that started it all. Pockemon is Japanese slang for *Pocket Monster*, the latest hot Game Boy series from Nintendo. Released on February 27, 1996, at a cost of ¥3,900, two versions of the game exist: one green, one red (the colour of the monsters corresponding to their individual characteristics – earth and fire, respectively).

After raising their monsters, players persuade the loathsome beasts to fight each other in order to test their abilities. Some aspects of the game also include an elementary RPG section where monsters travel through a landscape exploring buildings and meeting their inhabitants – an interesting touch, though hardly in the same league as *Final Fantasy VII*

Each of the games include 150 characters, although the basic monsters are the same for both versions. In an ingenious marketing move, however, Nintendo managed to persuade buyers that the two versions are significantly different, leaving players wishing to own all of the fighting beasts with no option other than to purchase both.

Several months followed and a new version, *Pocket Monster Blue*, was introduced featuring a whole new batch of contenders. This was the catalyst for a fresh explosion of interest in the game, so much so that the *Blue* version is usually sold out in Akihabara (Tokyo's district of electronic entertainment). Despite mediocre graphics and sound, so far the three versions have sold in excess of five million units in Japan alone, which is the equivalent of one copy for every three Game Boy owners – more than even *Final Fantasy VII* has managed to sell.

Not content with its success so far, Nintendo is currently working on a sequel. The imaginatively named *Pocket Monster 2* will feature more than 200 new monsters which will be able to reproduce (**Edge** can't imagine how), and will be link cable-compatible so that players can connect their Game Boys together and pit their monsters against friends – or enemies – for endless hours of digital fun.

As is usually the case with any popular trend in Japan, manufacturers quick to spot the potential of such a product took no time at all before hitting the streets with a broadside of related merchandise. Numerous *Pocket Monster* manga titles were followed by an anime series broadcast on television on a weekly basis, aimed at the younger, less-discerning viewer. The series' central character, Pika-chu, is a yellow monster and the most famous of all *Pocket Monster*-related things. Each episode features some unfortunate bilious creation in a life-threatening Flash Gordonesque ordeal.

Nintendo is not out of the merchandise race, though. According to the Japanese videogame giant, 120 examples of related goods are available from Japanese shops. Most of them – playing guides, keyrings, golden metal coins, toys – lack originality, but some are particularly humorous. The most successful, however (and appropriate for Nintendo, which started life manufacturing such products), are the Battle Playing Cards. These sell out within seconds and subsequently prove difficult to find by anyone but the most hardcore otaku.

Other projects include an N64 version currently being developed under the supervision of Mr Gameplay himself, Shigeru Miyamoto, yet nothing has been shown so far.

Not one to be left behind, though, Bandai is planning to release a new range of Tamagotchis, entitled Digital Monsters, which require players to raise their monsters and then link them up to another unit for head-to-head combat. Well, they do say imitation is the sincerest form of flattery.

Hopefully, before long Nintendo will realise an option where *Pocket Monster* owners will be able to unleash their savage creatures on unsuspecting Tamagotchis in a fight to the death. That *would* be a battle worthy of attention...











While Tamagotchi fever swept the nation, Nintendo's *Pocket Monster* series for the Game Boy was quietly building itself a bigger following than Bandai's bleeping digital pets. Despite its crude graphics (above, right), this latest phenomenon has already spawned merchandise (left)



In other Japanese gaming news this month, Capcom has just released a new coin-op called *Pocket Fighter*, a super-deformed continuation of its legendary *Street Fighter* series. Will this itty-bitty Chun Li ever make it to the UK?









The latest coin-op from Namco, *Final Furlong*, panders to Japan's horse-racing-obsessed populace. It offers potential players a near-real-life plastic horse which must be rocked back and forth to gee up the onscreen steeds



An audience with...

Ken Kutaragi

The man behind the gaming success story of the '90s has crossed the Pacific. **Edge** recently caught up with him in Hawaii to talk about his achievement, his competitors, and his belief in 'nice people'...

At the recent opening of SquareSoft's new Honolulu division, **Edge** got to chat with **Ken Kutaragi**, the new CEO of Sony Computer Entertainment of America.

Despite this prestigious new appointment, Kutaragi-san remains most famous for being the man responsible for designing the world-conquering PlayStation. He is also at the heart of Sony's PlayStation 2 project, a bid to produce a 64bit, possibly DVD-based gaming powerhouse expected to be released in late 1999.

So does his move to the US mean that work on PlayStation 2 is complete already? If not, can he possibly do both jobs at once? And what else does the 'father of PlayStation' have up his sleeve? **Edge** asked these questions and more.

Edge: How did your involvement with the original PlayStation project begin?

Ken Kutaragi: Just before PlayStation was born, there were the 8bit and then 16bit Sega and Nintendo machines. And I was very impressed with these – I was a Nintendo kid, when playing with my son. It was very, very nice entertainment for us. At the same time, though, I thought that videogaming had the potential to become an even more entertaining medium, if the experience was combined with the power of an advanced computer. So I thought that at some point in the future we could combine the two and create a new kind of small console.

Edge: So when did you start work on realising this dream?

KK: We started the project at Sony in 1986. To begin with there were just me and two other people – just three guys! – and then eventually we formed Sony Computer Entertainment in 1993 as a part of the Sony Corporation. By this time there were 60 or 70 people involved – some were young, some were old, some were from Sony Music, and some were from all sorts of other areas of entertainment. Now there are almost 1,000 developers working with the PlayStation, and between 5,000 and 10,000 creators working with these developers. So I am very, very happy with the PlayStation and to have this opportunity.

Edge: Which aspect of the PlayStation project was the most difficult to get right?

KK: The objective was a high-performance, low-price videogame system which also had a design which was easy to write games for. We wanted to get many software companies creating games, so we had to design a very small and sophisticated operating system and develop software libraries to help programmers. These libraries enabled programmers to create games quickly and easily and also allowed them to write high-quality games in a short period of time. Balancing these three things – performance, price, and ease of use – was the hardest thing to get right.

Edge: Perhaps the machine's most distinctive feature at the time of launch was its joypad. What was the thinking behind its design?

KK: The PlayStation gameworld is typically 3D, so the controller needs the shoulder buttons to move in 3D space. So we added the buttons for the index and middle fingers but realized that this made the pad unstable, so we had to add the grips on the lower part.

In development, we simulated every possible joypad situation. We imagined what it would be like to have to continually put the pad down while mapping a game, or playing while lying on the floor, and many other cases. After that we had to decide on the weight of the buttons and the pad itself. We adjusted the weights one gram at a time and eventually found the correct balance.

We probably spent as much time on the joypad's development as we did on the body of the machine. Sony's boss showed special interest in perfecting the final version of it, so it has his seal of approval.

Edge: How closely does the finished PlayStation resemble your initial plans?

KK: Well, 100%. The original idea was to make a synthesiser for graphics – something that could take a ▶



basic graphic and then add various effects to it quickly and easily. I wanted to develop a machine capable of displaying subtle effects without difficulty, and I believe we achieved that. I have a long list of things which could be used in future generations of the hardware, but in order to meet the low cost demanded of the PlayStation, many elements had to be left out this time.

Edge: So you were the chief designer of PlayStation (and have since been dubbed the 'father of PlayStation' in Japan). But the machine's design was finished three years ago – what have you been doing since?

'Even now we are manufacturing 1.5 million PlayStations a month, and this is a record high manufacturing history for Sony, even higher than CD players and Walkmans'



KK: Yes, I was the starting engineer, and many times I have been called the 'father of PlayStation.' But I also work in the software department, so I have also been involved with the hiring of people for Sony's software development – and this has been ongoing since the PlayStation design was finished. And I try to hire nice people. It's good to work in a corporation that is made up of nice people.

Edge: Nice people? You make Sony Computer Entertainment sound like one big happy family.

KK: Yes! [Laughs] Because the chances are that a nice person will make a nice product. It does make a difference. We now have very talented designers, sales people, and nice people in all areas of the business.

Edge: So you have staffed up Sony's PlayStation project with strong, talented, and – let's not forget – nice people. Now you have moved over to California to run Sony Computer Entertainment of America, does this mean that you are no longer designing hardware?

KK: No, I am still an engineer. I still have ideas, and I still have a team of designers in Japan. So although I am now CEO of Sony Computer Entertainment of America, I still dream engineer's visions.

Edge: So you still have engineering responsibilities. When you last spoke to **Edge** [**E**20], you talked about the frantic final period of the PlayStation's design, commenting that, 'At the peak, we stayed up all night for several nights in a row. We couldn't stop working because our work was so interesting. The only problem was that our office in Akasaka didn't have a bath in it. One of our employees didn't wash for two weeks!'

Because you were the chief designer of the original PlayStation, it has always been assumed that you would also be the chief designer of PlayStation 2. And yet taking on a large responsibility in the US doesn't seem to be characteristic of a man who presumably also has to 'stay up for nights in a row' designing PlayStation 2 in Japan. So does your move to SCEA mean that the PlayStation 2 design is already completed?



KK: Now you are speculating! [Laughs] Yes, I too have read this speculation – and plenty more speculation – on the Internet. It's very, very, interesting, but it's not true. And it's also incorrect to think that I am only doing one thing. As well as being an engineer, I have been involved in the business side of things for many years. I helped start the company, and I have always been involved in business decisions. So it is not as if this new position is a radical new change of direction for me.

Besides, there are only five executives of SCE. There is Terry Tokunaka, Shigeo Marayama, Akira Sato, Akira Tajiri, and me. And because there are only these five people who make up the core management team, there is a lot of rotation between duties. So everyone is skilled in many disciplines. In this way, we are a good team. And as for my work at SCEA, Kaz Hirai, the current COO of SCEA, will remain as COO, and this will be a great help to me.

Edge: But you're still involved with PlayStation 2?

KK: I am head of the development team, so yes, you could say that I am involved. [Smiles] But I can't say anything about it.

Edge: OK, let's try a different angle. The PlayStation was Sony's first dedicated games console, and obviously it has been a huge success. But is there anything that you would change about it? Or, if you could start the PlayStation project all over again, is there anything that you would do differently?

KK: Doing it again at the same time, in the same time period? [Thinks] No, I think I would release the same machine. It was a very focused machine; regarding the RAM size, the CPU, the controller, even the colour of the machine – everything was there. It was and is a very satisfying machine. Sure, it would have been nice to, say, double the size of the RAM memory. This would have been very easy. But suppose we had doubled the size of the memory, it would have been very expensive, it would have cost more at a retail level, and we probably would not have sold as many.

Sure, the Nintendo 64 now has a faster clock speed, but the ratio of clock speed to price typically doubles every two years, so it's no surprise that it is faster. But the PlayStation represented the cutting-edge technology of its time, and I am happy with it.

Edge: So how is PlayStation business doing, and what are the latest sales figures from Japan?

KK: The PlayStation has sold extremely well around the globe. The cumulative manufacturing number is almost the same as the installed base – we have sold as many PlayStations as we have been able to make – and that number is around 15 million. Even now we are manufacturing 1.5 million PlayStations a month, and this is a record high manufacturing history for Sony in Japan. It's higher than CD players or Walkmans ever were. And yet this is still insufficient to meet the demand which continues to skyrocket.

I visited London last week and there were no PlayStations to be had – many people shouted at me to get more PlayStations!

Yesterday, I was speaking to one of the employees at Square who told me that she had to wait one month to buy a PlayStation in Japan. And she works for Square!

Edge: So how does this compare to how Sega and Nintendo are doing?

KK: Today I went to a hardware shop in Honolulu and I found that there was very little stock of PlayStation or Nintendo 64, and my understanding is that the two machines are selling at a one-to-one ratio all across the US. Sometimes we're ahead, and sometimes Nintendo is ahead on a week-by-week basis, but obviously overall

we are way ahead.

In Europe, last month the ratio was two PlayStations to every one Nintendo 64 sold, and in Germany specifically – which is usually a strong market for Nintendo – the ratio was six PlayStations to four Nintendo 64s. In Japan, however, it is a very different story and PlayStation is selling a lot stronger than Nintendo 64.

Edge: Do you have any actual sales figures to back up your claims?

KK: Yes, the latest statistics in Japan, from the magazine *Famitsu Weekly*, say that from Christmas to this week, sales of videogame hardware have been of the ratio of ten PlayStations to one and a half Nintendo 64s to just one Saturn.

In Japan, every week there are roughly between 100,000 or 125,000 PlayStations sold through, so this means that if we are selling upwards of 100,000 per week, in that time Nintendo is selling 15,000 Nintendo 64s, and Sega is selling just 10,000 Saturns. So in Japan no one cares about Nintendo 64 and no one cares about the Saturn.

Edge: Why do you think that the N64 has failed to make a big impact in Japan?

KK: They are too late; people got tired of waiting for two years, and their timing is now wrong. Their other big problem is the pricing of the software. When you consider that a Nintendo 64 cartridge costs ¥9,000 and that you can get a *PlayStation Greatest Hits CD* for ¥2,500, it is easy to see why more gamers think that PlayStation offers a much greater value.

Edge: You say that one of Nintendo's problems is that it was late releasing the N64, but this is partly due to it using newer technology than the PlayStation in the form of its 64bit architecture and custom chips. You'll acknowledge that Nintendo's machine is technologically superior to the PlayStation...

KK: In regards to the graphics rendering portion, Nintendo 64 has an advantage. It has bilinear and trilinear interpolation and anti-aliasing, and this makes some of the graphics look very nice. Another nice thing about Nintendo 64 is that they integrated a lot of their chips together, and this is a very nice thing from a cost and manufacturing perspective.

But if anything they have oversimplified, and other engineers have found that the Nintendo 64 system is very difficult to work with. PlayStation is a much more well-balanced system and is a lot easier to work with. This means that a game developer doesn't have to spend so much time getting to grips with the hardware and fine-tuning everything; instead they can spend time on the creative side of making a game, and this is the most important thing.

Edge: Do you think this explains why there has been such a shortage of top-quality Nintendo 64 software?

KK: I think so, yes. This and the cartridge model which means that it is a very, very tough business for publishers. PlayStation introduced a lot of new concepts to the videogame business, but Nintendo has tried to keep things the same as they have always been. Nintendo wants Nintendo 64 to succeed using the same concepts as they had for 8bit and 16bit – even the game characters are the same!

Edge: Do you think that the 64DD device, Nintendo's proposed disk-drive add-on, will give the Nintendo 64 a new competitive edge?

KK: I know nothing about 64DD. They haven't shown it to me! [Laughs] But I think that CD-ROM is probably the best medium for game publishing for the time being. It's cheap and it is easy to make as many or as few as you want in a short amount of time. The 64DD is some kind of floppy disc drive, and the PC market gave up on these and now uses CDs.

Edge: How much unexploited power do you see left in the PlayStation? If Nintendo 64 games continue to get better, can PlayStation developers be expected to keep pushing back the limits ?

KK: I am always asking the same question to my engineers! So they have made a new weapon – we call it the Performance Analyzer – to test software with, to see how much it is exploiting the PlayStation.

Edge: And which games push the PlayStation the most?

KK: Well, for example, *Formula One* from Psygnosis is a great-looking game, but according to our performance analyzer it is only using 50% of the PlayStation's potential. And this was, until very recently, the most advanced game. *Tekken 2* uses only 30% to 40%. But now *Tobal 2* uses 90% of its potential. I was very surprised to see this, and they have done a very nice job with very little distortion. It's very stable and very nice. But all games are different, and it's very difficult to measure this kind of thing exactly.

Edge: And which developers do you believe have done the best work in getting the most of the PlayStation technology?

KK: Politically, this is a very difficult question to answer. [Smiles] But generally, Namco has done some great work and the software divisions within Sony have also.

Edge: So what technological innovations do you think that gamers will see in the next ten years?

KK: The next PlayStation, PlayStation 2, PlayStation X or whatever, or Nintendo 128, or some kind of *Windows 95*-compatible machine from Microsoft – whatever new machines we will see in the future – obviously we will see greater graphics capabilities. Game designers always want the game graphics to look the same as they do on a workstation, and workstations are always improving. But the most dramatic new benefit and revolution will be in the synthesising of human characteristics and creating a more human environment.

Edge: Is this predominantly a hardware problem or a software problem?

KK: It is both, and it is a very, very difficult challenge. It won't be until well into the next century that this dream is fully realised, but we will definitely see some radical steps forward taken in the next ten years.

Edge: And will you be working on the design of such a machine yourself?

KK: [Smiles] I'm afraid I cannot comment on that. E





'*Tekken 2* uses only 30% to 40% of the PlayStation's potential, but now *Tobal 2* is using 90%. I was very surprised to see this; they have done a very nice job'



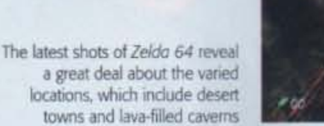
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PRESCREEN ALPHAS

Nintendo's tactic of releasing screenshots at the rate of a dozen every other month has always ensured that the potential audience for new games is kept keen, and this is certainly true for the current most-wanted N64 titles, **F-Zero 64**, **Yoshi's Story** and **Legend of Zelda 64**.

The latest shots of *F-Zero* to emerge from the marketing department at NCL point to a fourplayer splitscreen mode similar to that of *Wave Race 64*. Interestingly, there's currently a great deal of speculation on the Internet about the possible development of *Wipeout* for the N64, but judging by what **Edge** has already seen of *F-Zero*, it's difficult to see how such a game would fit into the N64 line-up – much of the trademark *Wipeout* gameplay has already been superseded in *F-Zero*, with the undulating tracks of *Wipeout* replaced by huge loops.

New shots of the eagerly awaited *Zelda 64* have also been released, and reveal much more about Nintendo's big Christmas hope for Japan, which will weight in at a whopping 256Mbits. Link is seen with a horse, and although none of the shots show him actually riding, Shigeru Miyamoto, the game's producer/director, has made it clear that the hero will be able to do so in the


The latest shots of *Zelda 64* reveal a great deal about the varied locations, which include desert towns and lava-filled caverns











As Link traverses the desert wastes, his boots kick up dust – just one example of the attention to detail lavished upon the game by NCL

Link has at last found a trusty steed (above), although how it will be implemented in gameplay terms is currently unclear. The Murky Woods (right) look superbly atmospheric. Also revealed is a huge enemy, the Ghome (far right), a spider-like creature which dwells in the forest, and the lizard man (top right). The variety and detail of the *Zelda* world easily rivals Nintendo's previous benchmark, *Super Mario 64*







Nintendo's designers continue to break ground in what many thought a dead genre. *Yoshi's Story* is a 2D platformer with some jaw-dropping scaling effects

Yoshi's Story will feature many types of unusual terrain and, most importantly, foe. These strange creatures (below) deform as Yoshi jumps on their heads







finished game. A number of new levels have also been revealed, including a lava scene reminiscent of the one in *Super Mario 64*, and some shots point to a wide variety of locations, such as a town in a desert and the 'Murky Woods', where Link comes face to face with a number of strange creatures – some friendly and some rather less so, such as the spider-like Ghoma and a lizard man. It has been almost two years since the first screenshots were released, but *Zelda 64* is finally nearing completion, and, unsurprisingly, it looks rather impressive. The overwhelming impression is of a game which far surpasses any of the titles yet seen on Nintendo's 64bit console – including the seemingly untouchable *Super Mario 64*.

Although no release date has yet been set, *Yoshi's Story* (formerly *Yoshi's Island 64*) is also progressing well. The latest screenshots suggest that Nintendo is once again preparing to set an unapproachable standard, taking the 2D platformer just about as far as it can go. As previously reported, the game will feature a mix of sprites (similar to the SNES title) and polygons. ▶





Like *Wave Race 64* and *Mario Kart 64*, *F-Zero* will feature a fourplayer head-to-head mode with little noticeable slowdown – a feature not seen at the E3 show













These latest shots from the forthcoming *F-Zero 64* suggest that the possible N64 conversion of *Wipeout* may be a pointless exercise. If *F-Zero 64* approaches the playability of the original SNES title, it will leave the likes of *Rev Limit* and *Multi-Racing Championship* in the dust

TOCA Touring Car Racing, from CodeMasters, is on its way to the PlayStation and PC. The 3Dfx version (below) seems set to provide a super-realistic experience






◀ There's some very clever sprite deformation going on in there, too – at one point, Yoshi has to jump onto strange, plant-like creatures, squashing them as he goes. Nobody does this kind of game better than Nintendo, and it will undoubtedly be the most vibrantly colourful title for the N64 to date.

Lunatik, from Pure Entertainment has undergone a serious revamp since **Edge** last saw the game (**E**45). As the PC 3D revolution continues, Pure must be thinking that gamers now want more from their shoot 'em ups than the traditional top-down view. Accordingly, it has lowered the camera into the alien cities to provide a more immersive experience. The new shots released to **Edge** also suggest that Pure may itself have been immersed in the excellent *Star Fox 64*...

The first serious competition for Delphine's smooth *Moto Racer* is currently in production at Italian studio Milestone. **Superbikes** features motorcycles from Yamaha, Ducati, Honda, Suzuki and Kawasaki, with players racing over 12 tracks in Europe, the US and Japan. Since motorcycle racing is nowhere near as popular as F1 (after Barry Sheen, Britain seemed to lose interest), only real fans will recognise the authentic touches, but the real draw for most gamers will be the sustained 30fps and detailed models to rival Sega's *Manx TT* coin-op. Milestone is producing both a software-only and a hardware version, and the fact that, like *Moto Racer*, *Superbikes* is a D3D title should guarantee it a welcome reception upon its release in October.

Imagineer may want to consider shifting the launch date of its N64 RPG, **Holy Magic Century** (previously known as *Erutel*), ▶







Pure Entertainment is currently in the final stages of development with its 3Dfx shoot 'em up, *Lunatik*. The camera angle has changed considerably since **Edge** first looked at the game (**E**45) and it now resembles *Star Fox 64* in places

Superbikes, from the *Screamer* team, looks incredibly slick, with bike models rivalling the detail of Sega's coin-op, *Manx TT*. Without 3Dfx, though, forget it














Screamer Rally should finally give the PC a rally game worth playing, thanks largely, of course, to the machine's new-found 3D power, courtesy of the PowerVR and Voodoo chipsets









Chameleon Twist, from Nihon System Supply, is due for release on the N64 in Japan this November and features a central character which uses an extending tongue to grab objects. A fourplayer mode is also on the cards, though quite how it will be implemented is yet to be clarified

The PC version of Core's *Fighting Force* (right) is shaping up well, although the PlayStation version will lead



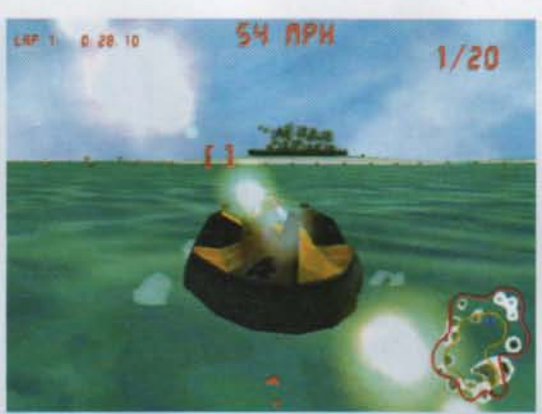








Holy Magic Century, from Imagineer, features a highly detailed world, with some truly beautiful locations and excellently designed characters





Ground Effect, here in full 3Dfx form, seems to borrow much from Nintendo's *Wave Race*. Hopefully, the 'sea' won't be merely a flat surface in the final game

◀ for the game is currently on a collision course with *Zelda*, due for release in Japan at Christmas, and would almost certainly be swamped by the rush for what must be one of the most eagerly awaited games on any system, ever. This would be a shame, as Imagineer's title looks like a detailed and charming game, with three characters to control and an intricate magic system. The only possible drawback is the size of the gameworld, as all the rooms and buildings are true 3D (unlike *Zelda*, which fixes the camera for some interiors, apparently to save cart space).

PC title **Ground Effect**, from Angel Studios, has a colourful, console-style atmosphere not dissimilar to *Wave Race 64*. It pits players against the elements in the kind of hovercraft familiar to fans of children's television series 'Gentle Ben' (and also seen in the disastrous Keanu Reeves movie, 'Chain Reaction'). The 3Dfx version (shown) looks slick enough, but the software-only version will run at around 20fps. Whether the game will benefit from the rolling wave effects and excellent handling evident in Nintendo's jetski racer remains to be seen.

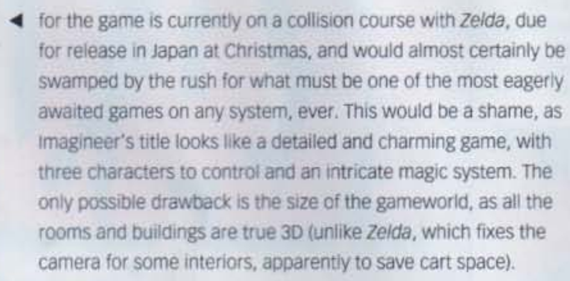
Barrage, from US codeshop Mango Grits, joins Innerloop's *Joint Strike Fighter* and Shiny's *Sacrifice* in sporting an impressive 3D engine that draws right to the horizon, with no discernible pop-up. As in *Ground Effect*, the player pilots a hovercraft, but this time through underwater sections, interiors and detailed landscapes. The game is also an OpenGL 3Dfx title, something that **Edge** predicts PC gamers will see a lot more of next year as Microsoft struggles to sell its D3D standard to developers eager to take advantage of 3D cards.

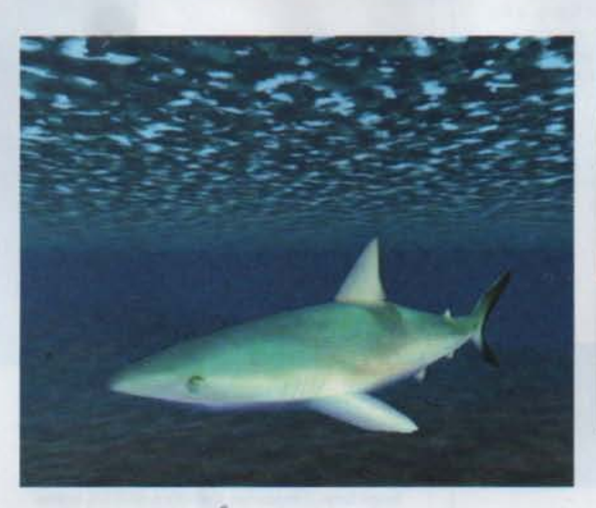






Konami's Nintendo 64 title *Hybrid Heaven* looks like it has the potential to be one of the biggest thirdparty releases on the machine. Due for release next year, the game appears to build upon the foundations laid by the company's PlayStation action adventure, *Metal Gear Solid*







PC title *Barrage*, from US developer Mango Grits, uses 3Dfx to draw right to the horizon, and features underwater-based action in places (left)









Myth, from Bungie Software, is being published by Eidos and is, to all intents and purposes, a skirmish simulator for the PC. The 3Dfx version shown here features smooth, rotatable, zoomable maps







X-Men vs Street Fighter is the next PlayStation and Saturn coin-op conversion due from Capcom in Japan. The game will really test the sprite-handling capabilities of Sony's console



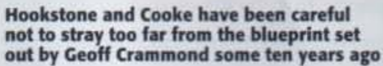
SENTINEL RETURNS

Reviving classic games is never easy and the eyes of thousands, if not millions, of fans will be watching as UK developer Hookstone drags Geoff Crammond's classic strategy into the '90s





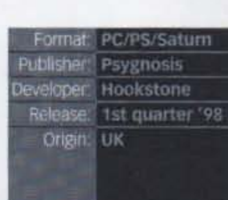




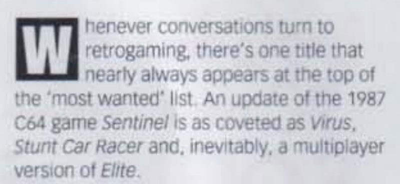
Hookstone and Cooke have been careful not to stray too far from the blueprint set out by Geoff Crammond some ten years ago



The trees of the original game have been replaced by grey spikes, and may be 'absorbed'

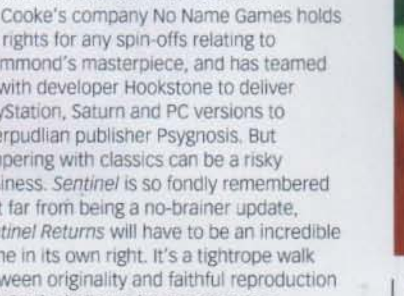


Format:	PC/PS/Saturn
Publisher:	Psygnosis
Developer:	Hookstone
Release:	1st quarter '98
Origin:	UK



Whenever conversations turn to retrogaming, there's one title that nearly always appears at the top of the 'most wanted' list. An update of the 1987 C64 game *Sentinel* is as coveted as *Virus*, *Stunt Car Racer* and, inevitably, a multiplayer version of *Elite*.

For the uninitiated, looking back on the old *Sentinel* leaves few clues as to why it is so enduringly popular. The graphics, though impressive in scope, look spartan. Amazingly for that time, the game had no central 'character' and an abstract premise that saw the player negotiating 3D landscapes by transporting from one spot to another, all the time avoiding the energy-draining gaze of the slowly rotating 'sentinel.' Not the easiest of concepts to grasp, but for those who gave it a chance *Sentinel* did become an obsession. Industry veteran **John Cooke** is now hoping to answer a few prayers by bringing the game into the '90s with *Sentinel Returns*.



Cooke's company No Name Games holds the rights for any spin-offs relating to Crammond's masterpiece, and has teamed up with developer Hookstone to deliver PlayStation, Saturn and PC versions to Liverpudlian publisher Psygnosis. But tampering with classics can be a risky business. *Sentinel* is so fondly remembered that far from being a no-brainer update, *Sentinel Returns* will have to be an incredible game in its own right. It's a tightrope walk between originality and faithful reproduction that Cooke believes he can negotiate.

'We took a conscious decision to not deviate too much from the original. We felt that the gameplay wasn't flawed in any particular respect – but it needed refining. For instance, the learning curve is too steep, then flattens out too quickly. We've redesigned the levels and made sure that it's easier to begin with then becomes progressively more difficult – much harder than *Sentinel* ever was.'

The PC version (shown here) retains much of the graphical style of the original,



The strange and surreal landscapes are akin to a chessboard. Each square may be strategically occupied by the player



The distinctive squares of the original game have been retained, but the landscapes have been updated, with more elaborate structure

while making allowances for the obvious technical advances of recent years. *Sentinel Returns* will support hardware acceleration, though this will only be needed to smooth textures. Frame rate is unlikely to be an issue, as Hookstone has chosen, perhaps wisely, to retain the original's halting scroll method, allowing the player to turn only very slowly.

'We've retained the claustrophobia by deliberately slowing the scrolling down,' explains Cooke. 'This is not a shoot 'em up! Part of the sweating panic you feel when you've been scanned and slowly drained of your energy is struggling to look around for an escape route, some trees, anything…'

THE SENTINEL IS SO FONDLY REMEMBERED THAT FAR FROM BEING A NO-BRAINER UPDATE, SENTINEL RETURNS MUST BE INCREDIBLE GAME IN ITS OWN RIGHT

Helping to create that claustrophobic atmosphere is a soundtrack from none other than movie director John Carpenter, who, it transpires, knows someone who knows someone who knows Cooke. The only thing missing, it would appear, is Crammond himself, but Cooke believes there's enough innovation in the sequel to keep everyone happy, including a multiplayer network option for the PC version.

Thankfully, unlike the original, *Sentinel Returns* won't feature 10,000 levels. Instead, there will be 'just' 666. The difference will be negligible in terms of difficulty, however, as *Sentinel* allowed players to skip as many levels as there were energy units remaining at the end of each battle. This has been left out of the sequel, which allows players to progress at the steady pace of one level at a time. There should be a pretty impressive end-game sequence once players conquer the final level, 'The Void'.

'I am probably the only person in the world,' claims Cooke, 'to have finished the original game twice. When I got to the end, I expected some kind of mega graphics fest, but it simply clicked over to level one! Gutted, I called up Geoff Crammond and demanded an explanation. The answer was classic Crammond: "You finished it? I never thought anyone would be that stupid…"'





The swirling skies and filtered textures bear the trademarks of hardware acceleration, but it's hardly needed in this slow-paced war of nerves

WARGAMES

THE COLD WAR MAY BE OVER, BUT A MOVIE REFLECTING THE NUCLEAR NEUROSIS PREVALENT AT ITS HEIGHT HAS PROVIDED THE INSPIRATION FOR A STRATEGY GAME WHICH PROMISES TO BE MORE THAN JUST ANOTHER C&C CLONE






WarGames **has not been designed to retain the movie's look, but Interactive Studios, in conjunction with MGM, has taken the original premise and skillfully applied it to this military strategy title. The plethora of tiny vehicles are excellently realised**




The building textures were designed on creaky cult Amiga package, *Brilliance*



Although it is rare indeed for a software company to use a movie licence for gameplay reasons rather than to make money, it seems that Interactive Studios has done just that with its forthcoming PlayStation/PC title, *WarGames*, a game based on Metro Goldwyn Mayer's 1983 movie of computer paranoia starring Matthew Broderick.

The story begins 20 years after the events depicted in the film. The player takes on the role of David (Broderick), who is working for the US government, helping to reprogram its defence computer to eliminate the danger of it triggering a nuclear war. Unfortunately, he fails, and when the computer challenges him to a *C&C*-style 'game' on a networked PC, he must win, as the computer may be preparing data for a real war.

What all this really amounts to is a military strategy game along *C&C* lines. The player gets a fleet of armed vehicles, helicopters and marines with which to defeat the forces of the government computer, over 30 campaigns. These




The vehicles are designed to move realistically across the terrain and do not have to fit into 'tiles' as they do in other isometric strategy titles

Format	PC/PlayStation
Publisher	MGM Interactive
Developer	Interactive Studios
Release	Early '98
Origin	UK



Each vehicle each has its own specialist uses and movement restrictions





missions have all been scripted by the movie's original writer, so inevitable thematic links between the two should lift this beyond the usual grab-a-licence-and-make-a-fortune fare.

So what does *WarGames* add to a jammed-to-the-rafters genre? The answer, according to team leader **John Whigham**, is plenty.

'Graphically speaking, we believe *WarGames* is pretty much unique in its total adoption of fully three-dimensional polygon technology,' he claims. 'One of our original design criteria was that there should be no compromise in any aspect of the game that would restrict what could take place on our virtual battlefield. We decided that with the exception of the troops on the ground, which would have been too unclear if generated realtime, everything in our world is constructed entirely from polygons and will consequently reap the benefits they convey.'

'BY BREAKING AWAY FROM TILES, WE ALLOW THE PLAYER TO PLACE UNITS EXACTLY WHERE THEY LIKE, TO AN ACCURACY OF A FRACTION OF A CENTIMETRE'

Essentially, then, Interactive Studios has abandoned the standard tile system which many *C&C* clones use, in order to make things easier for designers. In *WarGames*, the vehicles don't have to move over, and fit into, a rigidly defined grid system; instead, they have complete freedom of movement over the landscape. As Whigham explains, 'By breaking away from tiles, we allow the player to place their units exactly where they like, to an accuracy of a fraction of a centimetre. Units can face in any direction and can travel in straight lines at all times. While this is of great benefit to the player and to the game in general, the programming nightmares it raises have given us more than one sleepless night over the last few months.'

Each of the land, air and sea units has its own movement restrictions and abilities, which should add much to the game's strategic complexity. Tanks and other heavy vehicles, for example, are unable to tackle steep inclines, so players can amass their troops behind mountains to avoid enemy attack.

'Another aspect on which we lavished some serious attention was resource acquisition and management,' continues Whigham. 'Instead of opting for the clichéd approach of harvesting some resource or other found on the map, we instead have a tie-in to the original film with the use of hackers. The player clones these special troops and then sends them out to computer centres located around the level. Once there, they can be instructed to attempt a wide variety of "hacks" to gain information, upgrades, new technology or, most importantly of all, money.'

Although *WarGames* is still five months from release, it's already looking impressive. Visually, there are SVGA graphics, realtime weather effects and six diverse geographic environments, and there's plenty of promise in gameplay innovations, too. With 3D acceleration and LAN support promised for the PC version, and that well-constructed 3D environment, this could well prove that the military strategy game really is a genre in its own right and not just a bunch of designers copying Westwood Studios.







There are six environments in *WarGames*, featuring geographic locations such as mountain ranges (main) grasslands (top left) and seascapes (left)



At this stage of development, fog descends upon scenery in order to maintain speed, but the final build should allow a greater field of view

ULTIMATE RACE PRO

As one of the first demonstrations of the VideoLogic PowerVR chipset's prowess, the one-track version of Ultimate Race was a closely scrutinised piece of software. The full version looks set to turn even more heads







Only one of the new circuits (above and top left) is set outside of the United States (left) and features plenty of French countryside to distract drivers from the hard task of staying on the grey stuff







As well as circuits, Kalisto has promised a multiplayer arena mode

Format:	PC
Publisher:	Kalisto
Developer:	In-house
Release:	4th quarter '97
Origin:	France

When it appeared earlier this year as a demo bundled with the PowerVR board, *Ultimate Race* served as an impressive example of the potential of VideoLogic's chipset. Yet its only track (however long and varied) was not enough – a weakness so obvious that Kalisto's title could never be regarded as anything other than a glamorous diversion, however impressive its technical credentials.

With this full edition, however, the developer has added a multitude of new options in the hope of creating a PC racing game capable of proudly taking its place on the grid alongside the best the console world can offer – an honour that only Delphine's *Moto Racer* can currently claim, thanks in part to its excellent use of the 3Dfx chipset.

In *Ultimate Race Pro*, up to 16 contestants can participate in networked multiplayer races, and support for all major 3D cards is also included. More importantly the game now boasts four tracks. These can be flipped and reversed, boosting the final tally up to 16. Also, Kalisto has included an arena where contestants have to smash into the competition – similar in concept to Psygnosis' *Destruction Derby* – further enhancing the game's multiplayer potential

The main race features 12 computer-controlled opponents (or human if in multiplayer mode), whose AI has been considerably enhanced since their previous appearance. Other 'lifts' from the console classics include a training mode that enables players to engage in time trials or against their own best laps in the form of a ghost car.

Cars come equipped with either automatic or manual transmissions as well as a handbrake with which to negotiate the courses' trickier bends. Should players make any inadvertent off-track excursions, however, damage is taken care of in three dimensions and in realtime.

Other additions are purely cosmetic, ranging from shadows projected beyond both cars and backgrounds, three-dimensional sky detail smoke, sparks, transparencies, skid marks and weather effects such as rain, thunderstorms and fog.

If this 'proper' version fulfils the potential its predecessor hinted at, PC owners might have another product whose credentials could silence even the most belligerent console owner.





As in the demo version bundled with the PowerVR card, course detail remains impressive. The game presents a variety of racing environments

TENCHU

SONY MUSIC ENTERTAINMENT'S LATEST GAME OF NINJA STEALTH AND COMBAT MAY HAVE AN AMBIGUOUS TITLE, BUT IT LOOKS LIKE IT COULD EMERGE FROM THE SHADOWS AS ONE OF THE MOST INTERESTING PLAYSTATION ADVENTURES OF 1998

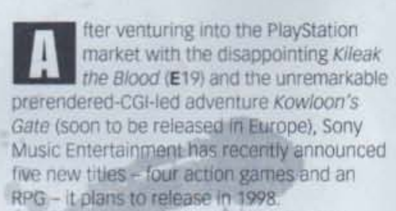








Although *Tenchu* will feature plenty of sword action, players will maximise their chances of survival by causing as little disturbance as possible, in true ninja spirit



After venturing into the PlayStation market with the disappointing *Kileak the Blood* (**E**19) and the unremarkable prerendered-CGI-led adventure *Kowloon's Gate* (soon to be released in Europe), Sony Music Entertainment has recently announced five new titles – four action games and an RPG – it plans to release in 1998.

Forming part of the company's action quartet, *Tenchu* sees players undertaking the role of either a ninja or a 'konoichi', the latter being the name given to the female variation of the infamous Japanese assassin.

The game's eight levels are based within an oriental-style castle with impressively detailed 3D backgrounds. Fights can occur at any time and in any of the castle's many locations, such as deep within the dungeons or high up on rooftops.

Although initially looking similar to *Bushido Blade*, *Tenchu* quickly differentiates itself by taking a different approach to SquareSoft's example of all-out fighting action. In terms of gameplay, Sony's title is actually closer to Konami's *Metal Gear Solid*, with players ideally avoiding the majority of the many opponents rather than meeting them head on. Avoiding lights and hiding in the shadows before attacking unsuspecting sword-wielding adversaries with a lethal strike would therefore be the recommended course of action. While the lead character is quite capable of surviving multiple combat situations should the player be discovered by the enemy,the aim of the game appears to lean towards a more strategic approach rather than simply encouraging a string of mindless battles.

Players will be able to move their character freely within a 3D environment and, as is increasingly the case in adventure games, motion capture has been used to ensure the animation is as smooth and realistic as possible, with particular attention paid to the fighting sequences.

Other graphical touches, such as blood spraying from a victim's recently sword-struck body, are gruesomely effective, albeit severely censor-unfriendly.

Previous SME productions have had a tendency to place graphical quality above gameplay, yet early impressions suggest that this time around things may be different. *Tomb Raider* has established the potential for adventure/combat hybrids set in complex, full 3D settings, and, as *Tenchu*'s oriental combat overtones are evergreen favourites of videogamers, this is one PlayStation title to watch. **E**



Shadows will provide the perfect hiding spot for surprise attacks on unsuspecting enemies

Format:	PlayStation
Publisher:	SME
Developer:	In-house
Release:	TBA
Origin:	Japan





The finished game will contain a wide variety of background details in and around the castle

GUNBIKE

ONE OF THE MANY THINGS THAT JAPANESE POPULAR CULTURE HAS GIVEN TO THE WORLD IS THE CONCEPT OF THE FIGHTING ROBOT. GUNBIKE ADOPTS A FAMILIAR ORIENTAL THEME BUT ADDS A FEW IDIOSYNCRASIES OF ITS OWN...



One of *Gunbike*'s strengths is its graphical accomplishment. The backgrounds are highly detailed and, fittingly, some of the special effects used for the weapons give it a visual quality reminiscent of an anime film









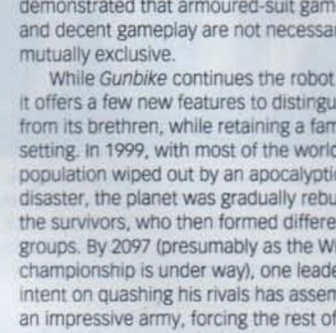
Gunbike features some particularly impressive bosses, which are likely to test players' abilities

Japan's obsession with robots and mobile suits is well-known, with numerous television series, manga/anime products and toys dedicated to the angular metal fighters. The phenomenon also extends to the Japanese videogames industry, of course, which has seen a vast number of armoured-suit titles over the years, particularly during the 16bit era. Due to hardware limitations, though, such games have often been disappointing, with blocky and poorly animated robots battling to get the most out of a minimal amount of gameplay. With the arrival of 32bit machines, however, the genre seems to have matured. Examples such as *Gun Griffon* for the Saturn and the PlayStation's *Armoured Core* have demonstrated that armoured-suit games and decent gameplay are not necessarily mutually exclusive.

While *Gunbike* continues the robot theme, it offers a few new features to distinguish it from its brethren, while retaining a familiar setting. In 1999, with most of the world's population wiped out by an apocalyptic disaster, the planet was gradually rebuilt by the survivors, who then formed different groups. By 2097 (presumably as the Wipeout championship is under way), one leader intent on quashing his rivals has assembled an impressive army, forcing the rest of the population to respond with their own artillery.

As a member of this resistance group, the player has to choose one of three mobile suits, each possessing the ability to change into one of three shapes: its normal armoured-suit form, an 'Akira'-style bike, or an equally stylish hovercraft. Players can choose to execute a transformation at any time, with each mutation appropriate to different situations.

Gunbike has the potential to be an excellent title, with large 3D fighting arenas, great weapon effects, and some impressive bosses. Despite its obvious Japanese themes, it should find an audience with action-game fans the world over.





Format:	PlayStation
Publisher:	SCEI
Developer:	SME
Release:	TBA
Origin:	Japan

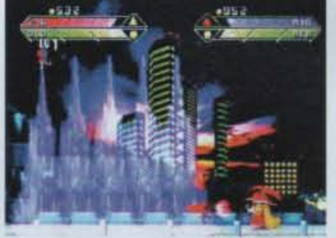


Each of the robot's transformations, such as the bike (above), offers certain advantages, and players must make full use of them in order to succeed

SILHOUETTE MIRAGE

WHETHER 3D GRAPHICS REPRESENT THE FUTURE OF VIDEOGAMING OR NOT, ONE COMPANY, TREASURE, IS DETERMINED TO FOLLOW THE PATH THAT HAS MADE ITS NAME – 2D. THE RESULT APPEARS TO BE A SATURN SHOOT 'EM UP WITH STYLE...







Silhouette Mirage **continues Treasure's typically Japanese approach to 2D side-scrolling affairs, with splendid optical effects and wonderful characters**

After demonstrating what can still be done with the 2D platform-shoot 'em up genre with the action-packed *Yuke Yuke Trouble Makers* (see **E**48), the Tokyo-based codeshop Treasure is bringing a similarly themed title to the Saturn.

Like all of the company's games, *Silhouette Mirage* is immediately recognisable as a Japanese production, with strong character design coupled with innovative gameplay. In this case, the major difference from previous examples of the genre is the main character's dual 'personality', appearing as either blue or red depending on the direction she is facing. The game's enemies also appear in one of two colours, thereby determining from which side they must be ideally attacked.

The lead character possesses myriad moves, including the option to grab and throw villains to ensure that they face the optimum side for a successful attack.

As was the case with *Trouble Makers*, Treasure has made good use of the Saturn's graphical grunt, which offers so much more than 16bit technology, and players can expect a refreshing series of clever and amusing twists to keep them occupied throughout their action-packed adventure. It may be optimistic to expect a UK release, though.

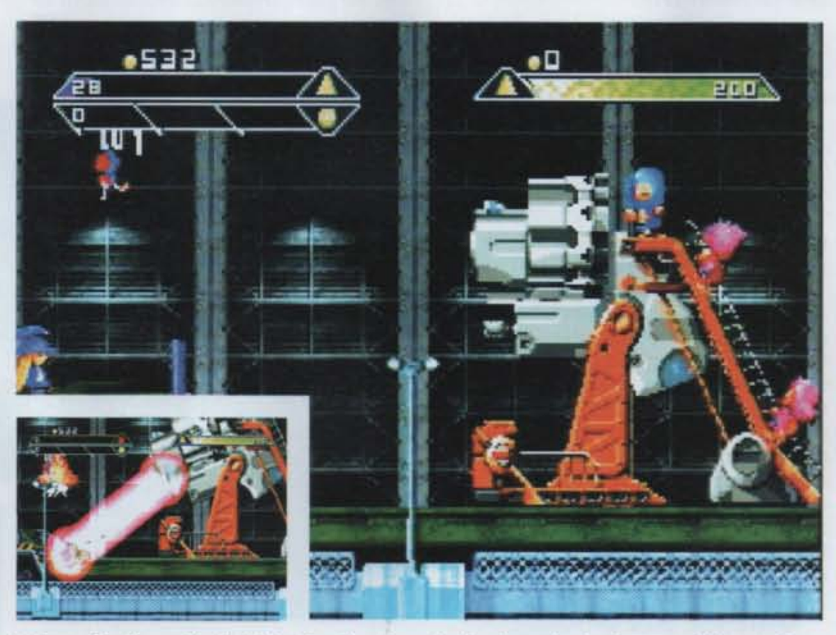


The backgrounds are as graphically impressive as the foreground sprites





Residents complaining about the noise (above) is a great comic touch



Even after the method of defeating them is meticulously worked out, some of the game's imaginative end-of-level bosses (above) pose a serious threat to the player's advancement

Format:	Saturn
Publisher:	Sega
Developer:	Treasure
Release:	Sept '97 (Japan)
Origin:	Japan

SHADOW MASTER

Psygnosis is making a concerted effort to divert attention from its new game's lightweight plot by utilising the smoothly airbrushed services of prog-rock album-cover artist Rodney Matthews



Although polygon-based, the game's characters have nevertheless retained the overall essence of fantasy artist Rodney Matthews' conceptual work









The explosions are particularly impressive

The eponymous character in Psygnosis' new blaster is an alien dictator who has spent thousands of years at war, acquiring resources from neighbouring planets to fuel his ongoing tyranny of evil. Having set his sights on the player's planetary system, it's now up to the latter to defend it or die.

Players are ensconced within the cockpit of a heavily armoured warcraft which is able to move in any direction as well as looking and firing up or down. The epic battle for survival takes place over 16 levels, stretching across seven planets, before the final confrontation on the Shadow Master's homeworld. Most of the levels look vast – with a large number of enemies to keep players on their toes – and the PC version also accommodates an eightplayer linkup.

Shadow Master differentiates itself from its competitors by dint of its visuals, the work of leading illustrator of fantasy Rodney Matthews, whose career has encompassed a wide range of projects ranging from album covers to posters and, recently, multimedia. Indeed, the game's strong visual style is one of its strengths. Its beautiful corridors, tunnels, and panoramic spaces do much for the overall sense of atmosphere. The characters benefit from an artistic touch, though their polygonal construction gives them a more angular look than Matthews' traditional airbrushed smoothness.

Nevertheless, should six creatures suddenly attack simultaneously, most players will drop out of art critic mode and concentrate on the task at hand.

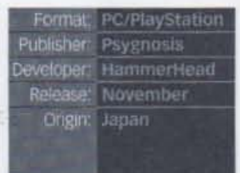
In its present state, however, *Shadow Master* disappoints. Gameplay is strictly one-dimensional, with the levels requiring little or no exploration – there are no locked or hidden areas, for example. **Edge** hopes that the gameplay will be honed to match the game's visual extravagance by the time it is released.

Format:	PC/PlayStation
Publisher:	Psygnosis
Developer:	HammerHead
Release:	November
Origin:	Japan





The game focuses on action, leaving little time to admire its great lighting effects



SONIC WINGS ASSAULT

Having undertaken the legwork for Nintendo with the classic PilotWings 64, US-based Paradigm has elected to push ahead with another air-based title. Will its partnership with another Japanese publisher prove equally fruitful?







Despite featuring elements from conventional flight simulations, *Sonic Wings Assault* is action-orientated – an energy bar indicates the amount of damage sustained, establishing the game's arcade style. A wide variety of enemy targets feature in the aerial- and ground-based missions





Players will be able to take to the skies in a selection of classically styled warplanes

Format:	Nintendo 64
Publisher:	Video System
Developer:	Paradigm
Release:	November (Jap)
Origin:	US/Japan

Although originally part of a series of '24 Mega' Neo-Geo games, the only similarity between SNK's ageing shoot' em up titles and this N64 version is the game's moniker. Gone is the vertically scrolling 2D action, replaced by 3D polygons and the ability to move freely within a more lifelike environment.

Sonic Wings Assault will feature three modes of play. The first, Training, allows players to pick individual missions in order to perfect techniques such as ground attacks and hone their dogfighting strategies.

The main section, the Scenario mode, will offer a minimum of ten stages, each broken down into several missions, the end of which seeing gigantic end-of-level polygonal bosses attempting to hinder the player's progress. Combat will take place all over the world, and a certain interactivity with the backgrounds will exist, such as the ability to attack and destroy a range of Tokyo's most famous buildings and structures.

The third mode is a classic Versus option, where two players choose a team of four aircraft each. Players will pilot one of the team's aeroplanes, the N64's CPU taking care of the remaining trio, the degree of their involvement being determinable before takeoff. A variety of aircraft based on real machines currently in service around the world's air forces will be available, such as F-14s, F-15s, and A-10 bombers.

Fighters will communicate to each other in a fashion similar to *Star Fox 64*, adding to the game's atmosphere, and two views will be available – cockpit and chase cam.

At this stage, certain areas, such as the backgrounds' plain-looking texture details, still require some work, which developer Paradigm will hopefully address in the few months before the game's release.

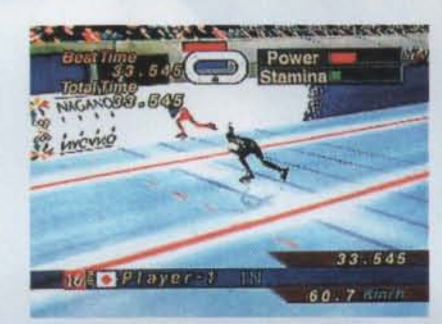
Whatever the outcome, beyond *PilotWings 64*, which offers a fairly lightweight interpretation of flight simulation, there are surely many N64 owners ready to lap up a more serious title such as this. E



***Sonic Wings Assault* has changed substantially since its Neo-Geo incarnations, but looks unlikely to push the N64's visual capabilities**

HYPER OLYMPICS IN NAGANO 64

After delivering one of the most enjoyable multiplayer games ever in the form of International Track & Field, Konami is returning to the sporting field once more – albeit in chillier conditions







As in previous Konami sports titles, *Hyper Olympics* is bound to combine an unhealthy amount of button-bashing with split-second timing for players to stand high on podiums

Hyper Olympics is the latest in Konami's honourable tradition of sports titles, and just as last year's *International Track and Field* was released on the PlayStation to coincide with the Olympic Games, this is appropriately timed for the Nagano '98 Winter Games.

CLASSIC EVENTS SUCH AS ALPINE AND FREESTYLE SKIING, SPEED SKATING, BOBSLEIGH, LUGE AND SKI SKI JUMPING ARE MIXED WITH SNOWBOARDING

The importance of timing should not be underestimated. For two years a clock outside Tokyo's Shibuya station has been counting down the days – to the Japanese, this is an event of biblical proportions.

The game promises 12 events, with players being able to fly the flag for one of 16 countries. Classic events such as alpine and freestyle skiing, speed skating, bobsleigh, luge and ski jumping are mixed with more contemporary disciplines such as snowboarding.

The championship option gives players the opportunity to set a contest with a specific number of events. Alternatively, the more traditional Olympic mode will enable players to compete for medals.

While Konami is producing a PlayStation version, this 64bit example should offer the most realistic experience. Nintendo 64 owners should perhaps start investing in some super-durable joypads right now... ∎





True to fashion, *Hyper Olympics* features some of the more en vogue winter sports



Motion capture affords more realistic motion



Format:	Nintendo 64
Publisher:	Konami
Developer:	In-house
Release:	December (Jap)
Origin:	Japan

WITCHER

POLISH DEVELOPER METROPOLIS IS USING THE CULTURE AND FOLKLORE OF ITS OWN COUNTRY AS THE INSPIRATION FOR AN ADVENTURE GAME INVOLVING MONSTERS, MAGICIANS AND, OF COURSE, A POINTY HATFUL OF SPELLS



The fighting engine is particularly realistic, and, as in *Bushido Blade*, enemies can be killed with one blow, including decapitation







The emphasis is on allowing players to play a part in an engrossing movie-like experience

Witcher, from Polish codehouse Metropolis, is a fantasy adventure with action RPG elements. The game is based on a character created by Polish fantasy writer Andrzej Sapkowski, and tells the story of Geralt (aka the 'Butcher of Blaviken'), his sorceress love, and a bard named Jaskier, in the process uncovering various mysteries, such as the slaughter of Blaviken, how Geralt became a witcher, and why elves are killing humans in the forests.

A witcher is a cross between an assassin and a wizard, and his services are called upon whenever a town is threatened by a monster. The training of a witcher is an arduous process involving drugs and special spells. Successful applicants emerge with powers such as being able to see in the dark and move faster than ordinary humans. Having passed an extra test that no one had previously survived, Geralt is widely considered the best witcher in the land.

Witcher is viewed from a thirdperson perspective and all of the environments are in true 3D, allowing realtime shadows and light sourcing to be employed. The developer has also included a certain amount of interactivity with the surroundings, so that different sounds are heard depending on the surface being walked on, while torches cast dynamic lighting, and sparks fly whenever swords hit stone walls.

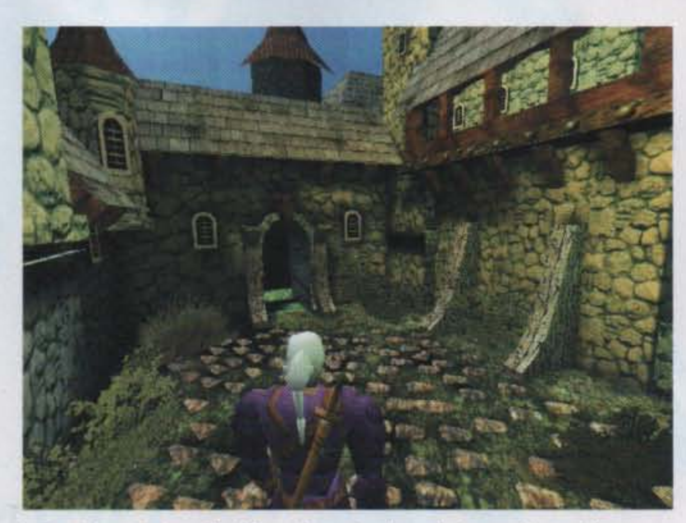
Metropolis is confident that its engine is more player-friendly than those evident in other, similar games, remaining simple despite the complexity of the tasks and allowing players to focus on the game rather than the controls. Although already regarded in Poland as one of the country's top developers, Metropolis is hoping that *Witcher* will do what *Tomb Raider* did for Core and enable it to find a wider audience.

Like any adventure title, *Witcher* is structured in a linear fashion, but the mixture of plot elements should enable the player to choose different paths to fulfil his quest, without having to plod through every stage in a methodical fashion, thereby giving the game an extra, appealing twist. E



The intelligent camera system automatically selects the best view in terms of gameplay

Format:	PC
Publisher:	TBA
Developer:	Metropolis
Release:	TBA
Origin:	Poland

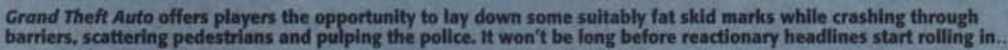


Developer Metropolis claims elements of psychology and moral issues are just some of the themes in *Witcher*, making it an adult-oriented title

GUNS, DRUGS 'N' FAST MOTORS

Having delivered little of note since its hugely popular *Lemmings* series, Scottish codeshop DMA Design is back with a title likely to inflame the moral majority

Grand Theft Auto offers players the opportunity to lay down some suitably fat skid marks while crashing through barriers, scattering pedestrians and pulping the police. It won't be long before reactionary headlines start rolling in...







The camera zooms smoothly in and out. The faster you drive, the wider the field of view

The violence in videogames brouhaha is set to erupt once more courtesy of Scottish coders DMA. With *Grand Theft Auto*, it's graduated from killing innocent-looking lemmings to innocent bystanders. For those who laughed maniacally as the little blue mammals plunged to a thousand entertaining (and certainly violent) deaths, driving around an American city turning bystanders in sports jackets and check trousers into a bloody smear will be manna from heaven.

Grand Theft Auto's concept is so simple it's hard to believe no enterprising codeshop has picked up on it before. Players take control of a small time criminal/psychopath (depending on how players feel about running over pedestrians) who must work his way up the ladder from hood to a 'made guy' by carrying out errands, crimes and favours for a local crime syndicate. And that's where things begin to tip in favour of the moral majority.

It won't be hard for the likes of the *Daily Mail* to snatch a few headlines from storylines like these. Shooting the brother of your employer, for instance, because he found out that your boss was 'banging' his wife. Or mowing down a line of Hare Krishnas as they walk along the pavement (extra points for killing them all). Or, possibly, driving a Mack truck full of explosives into the Police HQ and watching it blow, with the added incentive that if



Cars will only take so much abuse before they blow, taking the driver and a few pedestrians with them



It's not all plain sailing. To jump this gap requires a fast car. It's possible to go around, of course, but *GTA* isn't about the easiest route, it's about the fastest

you're more than a few feet out with your parking, the target becomes the hospital next door...

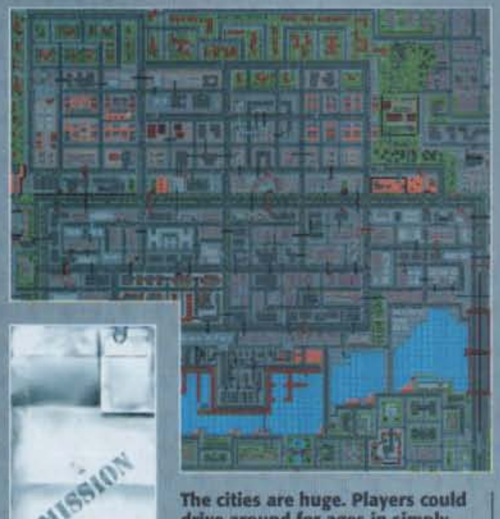
Keith Hamilton is the team leader on the project, summing up the feeling that led to such an obviously controversial game thus: 'We've designed games that we'd like to play ourselves. We're fed up with cutesy, kiddy, patronising games. Why have we gone for a mature audience? Because we're supposedly a mature industry, and the game is heavily influenced by "mature" films. It's fine to have swearing in a game – people swear, so why should a game marked for an adult audience not have mature content?'

Why not, indeed. What will almost certainly make *GTA* such a hot potato in the coming months, though, is the richness of the gameplay, mature or not. The city feels genuinely real, with cars constantly on the move, pedestrians crossing and going about their business (until, tragically, out of the blue...) and police keeping tabs on the player's notorious deeds. In common with Activision's excellent *Interstate '76*, *Grand Theft Auto* is a complete and engrossing experience. The top-down view of the city reveals one of the most startlingly original and alive environments yet seen in a videogame. It's packed with the little details that make the difference between sitting there passively tapping the keys and staring, open-mouthed, leaning into every turn. Programmer **Brian Baird** is very much into the idea of the three cities operating like living organisms.

'We're fed up with cutesy, kiddy, patronising games. Why should a game marked for an adult audience not have adult content?'

'We've gone to great lengths to try to make the city 'breathe',' he emphasises. 'Things do go on without your participation. If you want to cause chaos you can, but you have to live with the consequences. There is a lot of logic going on underneath the surface – police cars patrol the city constantly, and if you wander near one while you're getting chased, he'll join in. Yes, there are shortcuts going on behind the scenes, but we can still have anything up to 400 cars and over 600 pedestrians. That's a lot of logic going on.'

Each of the three cities takes several minutes of driving to get from one end to the other. There are over 2000km of roads, alleyways, dead ends, bridges and tramways, and more than 20 different kinds of cars to drive – which is where the most innovative (and once again, head-thumpingly simple) concepts is to be found: carjacking. ▶



The cities are huge. Players could drive around for ages in simply exploring the labyrinthine map





The police are vigilant. Turning their buddies into bloody messes makes them angry





Players aren't limited to cars and trucks. If they can find it, the tank gives them an edge



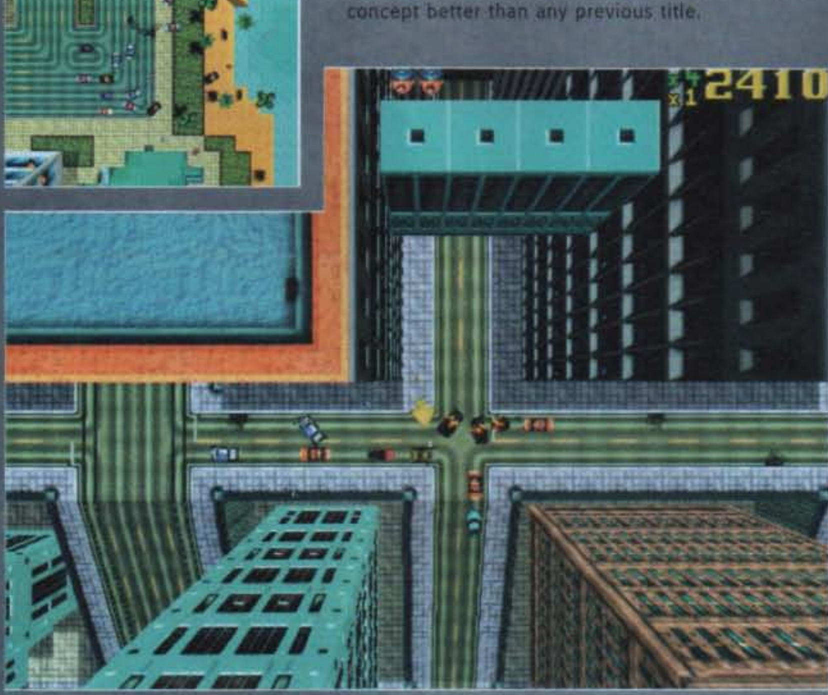


The city feels very much alive. It's filled with sirens, fire engines, ambulances, people going about their daily routines and, of course, criminals. The missions are important, but not vital. Points can be accrued in many ways

To complete the missions, and avoid the police, players are constantly having to find new wheels – and any will do. All vehicles can be stolen and driven to destruction, including ambulances, fire engines, motorcycles and police prowlers. Every time an innocent driver is pulled unceremoniously from his car, given a thump and left for dead, they're accompanied by either a thoroughly convincing scream, swearing or a terrified cry for help. It may sound gratuitous, but it is not – it simply fits the theme perfectly. So well has this jigsaw of a city been pieced together that almost every action has a matching sound effect, adding more atmosphere to the game. On the evidence of the PC 3Dfx copy seen by **Edge**, *Grand Theft Auto* has married the triumvirate of sound, gameplay and concept better than any previous title.

Every car has its own soundtrack, which begins as soon as it is driven away. The taxis have radio chatter mixed with a general local radio station, the 'Cossie' (a deliberately poorly disguised Cosworth) features pumping house music, and the Lamborghini Diablo a superb piss-take of Steve Vai-style rock. Incredibly, almost all the music was done in-house, with just a few tracks farmed out to local bands. Even then, the material was written almost entirely by DMA staff, headed up by **Colin Anderson**. He worked with Craig Conner and Grant Middleton on over 30 tracks, picking the best 15 for inclusion in the game. One in particular, the country & western song that accompanies any stolen flatbed, has something of a story behind it.

'Yeah, that was a good one,' Anderson laughs. 'We gave our American office in Boulder the task of



The 3Dfx card keeps *GTA* running at a smooth 25fps, but there's little loss of speed when running in software, as the city is constructed of large, simple polygons, with cars as sprites





The level of detail in *Grand Theft Auto* is such that the three years it took to complete seem well spent



This render captures the retro '70s style of the game, which draws inspiration from classic chase movies

finding a suitable band, and they called us up to tell us about a gig they'd seen on TV from 1969 by a band called Sideways Hank O'Malley and the Alabama Bottle Boys. They said the vocalist was just the guy we were looking for. We tracked him down, and thankfully he was still alive and, even better, living in Scotland! He'd reverted to using his real name, Drew Larg, and was still playing in a band called The Buzzards. After a lot of persuasion he agreed to reform the old band, albeit across the ocean. We recorded the other members on Boulder and then dubbed Drew's vocals later in Dundee.'

Which does, in a rather roundabout kind of way, sum up the attitude of the *GTA* team. Namely, that nothing is too much bother if it's right, which is why newspapers will glean plenty of column inches out of this game – because DMA is determined to bring its favourite movies to life on the small screen, with all of the detail necessary. All the blood, all the screams, all the black humour – and, of course, the real raison d'etre of *GTA* – the fabulous car chases.

'A lot of the missions were inspired by favourite high-octane thrillers such as "Dirty Harry" and "The French Connection"', explains programmer **Alan Campbell**. We threw in literally hundreds of ideas and kept the ones that we found most fun. We wanted to put absolutely everything into *GTA*, but if we did it would've taken ten years to write. We're very happy with the way it's turned out, though – the freedom, the scale, the fact that you can walk anywhere you want, steal any car that you want and drive anywhere that you want is what makes *GTA* what it is. In most car games these days, the driver is portrayed as a crap pair of hands against a digitised dashboard – it's so limited!'

GTA is only a few weeks away from completion and is slated for simultaneous late-November release on the PlayStation and PC. When it does finally reach the high street, DMA will be bracing itself for a predictable backlash from the mass media the game's no-holds-barred approach will attract – preceded, almost certainly, by an unwavering cry of support from the specialist press.

'You know,' sighs programmer **Ian Ross**, 'there's been all this nonsense already about how the aim of this game is just to kill police. That's pure rubbish. If you go around killing cops then you won't complete the game, as they will either arrest you or kill you, arriving in greater and great numbers. I really just wish that these so-called do-gooders would turn their energy towards some real-life problems for a change.'

If only.





The police (top, 3Dfx image) will set up roadblocks to catch a player who's been a little too obvious with his crimes. The unaccelerated version (above) is naturally less eye-catching

'MISSIONS WERE INSPIRED BY MOMENTS FROM THE PROGRAMMERS' FAVOURITE HIGH-OCTANE THRILLERS, LIKE "DIRTY HARRY" AND "THE FRENCH CONNECTION"'



Kill Frenzy: 20 seconds to fill as many bodybags as possible

SEGA'S PC CONNECTION



Sega's continuing support for the PC has seen the company porting its catalogue of sophisticated coin-ops to Intel-based architecture. Edge meets the Japanese division responsible...

Japan may be the breeding ground for the world's console and arcade game companies, but the IBM-compatible PC has always had a tough time here. The country's complex computing marketplace is characterised by myriad incompatible operating systems which have been developed to support the various Japanese character sets rather than designed with global compatibility in mind. As a result, the most popular format here for many years has been the 9801 series, which is based on a standard created by NEC. Now, though, things are changing fast. *Windows 95* – launched in the UK two years ago – is finally taking off and the PC market is starting to be taken seriously by big Japanese developers.

And few come bigger than arcade giant Sega. **Edge** visited the company's 40-strong PC division in Tokyo – hidden away in an unassuming building amongst some small streets near Haneda airport – and got the lowdown on its plans from division manager **Hiroyuki Otaka**.



Hiroyuki Otaka is the manager of Sega's PC division in Tokyo. He believes that the 3D card market is still too splintered for Sega to commit to potential winners

Edge: Sega has always been a company fuelled by leaps in graphical performance. Given that PCs are already starting to overtake consoles in Europe and the US, do you think that this will happen in Japan as well?

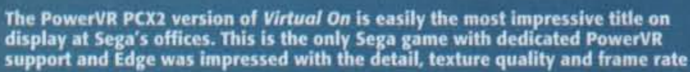
Hiroyuki Otaka: On the whole, in Japan I think people are more interested in gameplay than graphics. Considering graphics only, yes, the PC has already overtaken the consoles, but it's not everything. In Japan, the *Pocket Monsters* series has sold millions of units, proving that millions of people know what makes a great game. The graphics are nothing special and the sound is also poor, but at the end of the day the game is enjoyable. Of course, the PC has some advantages, like its hard disk, while consoles are cheaper and can run games more efficiently. There are pros and cons with every format. If you cast your mind back to the Atari era in the US, computers were not very popular then. However, when Atari disappeared, the computer became stronger. It's a kind of never-ending cycle between consoles and PCs and I'm sure it will continue.

Edge: Would it be fair to say that PC games are a fairly low priority for Sega compared to the arcade and the Saturn?

HO: It depends. For instance, some arcade games are converted to the Saturn, then to the PC. It may happen that some software will be converted simultaneously to PC and Saturn. In the future, there should be more titles converted directly from the arcade to PC. However, we don't want to

CONTINUED ▶




The PowerVR PCX2 version of *Virtual On* is easily the most impressive title on display at Sega's offices. This is the only Sega game with dedicated PowerVR support and Edge was impressed with the detail, texture quality and frame rate







just produce straightforward conversions. We want to add something – additional features such as networking, for example. Our recent software already offers link-up potential: *Manx TT*, *Daytona*, *Worldwide Soccer*... *Daytona* will allow up to eight players to take part and *World Wide Soccer* four players. *Virtua Fighter 2* will allow for twoplayer support over a network, with ten players in Team Battle mode.

Edge: Is Sega targeting the 3D card market or is it hoping to attract a wider audience with more basic configurations?

HO: At the moment our core target is basic Pentium machines. If a video card from any manufacturer does develop into a standard and penetrates the market to a significant extent, we will develop for it. But in the present situation, and given how powerful a card can be, it is not possible. For instance, we are thinking about getting involved with Direct3D, but the board is hardly widespread. Direct X5 will be released soon, including the new 'Draw Primitive' capability, which is much faster than the former 'execute buffers'. But the problem is that there are some boards on which it works and others where it doesn't. We don't know yet which board has a future. And more new boards will be released this year...

Edge: Sega initially ported *Virtua Fighter* to the PC's nVidia chipset, but this has since been abandoned. In the future, which cards do you plan to support?

HO: What you have to remember is that compared to the US and European markets, the Japanese PC market is tiny – we estimate that there are only around 10,000 3D cards in Japan. We want to try different kinds of cards. For instance, we announced *Virtual On* for the PowerVR card but only the VideoLogic PCX2 card goes on sale in Japan in October. We wanted to announce *Sega Rally Championship* and *Virtua Cop 2* for Direct3D at the E3 show, but we postponed the announcement.

Edge: How are you going to choose which 3D cards to support? Why did you initially choose PowerVR and not 3Dfx, for example?

HO: 3Dfx's Voodoo seems very successful and we are ▶





The original Model 2 board that runs *Virtual On* in the arcade is, in Otaka-san's estimation, about three to four times more powerful than a fast, unaccelerated PC. How Model 3 figures in Sega's PC plans remains to be seen...

PCs in Japan

Unlike its Western equivalent, the Japanese personal computer market has been a splintered affair by comparison, with companies creating and maintaining proprietary, and mutually incompatible, technologies.

Back in 1990, NEC had emerged as the market leader with its PC9801 platform, an architecture that dominated the industry since its introduction in 1982. But gradually, as the rest of the world built its computing empires around Microsoft's MS-DOS and IBM's PC/AT architecture, so Japan followed, and with the launch of Windows 95 *Japan* in November 1995, NEC, Toshiba, Fujitsu, IBM Japan, Epson, and other manufacturers had moved over to make their computers *Windows 95J* compatible. A three-horse race eventually emerged in the Japanese computing market between NEC, Microsoft and Apple Japan – and it's a race that continues today.



Tadashi Ihoroi, planner of *Virtua Fighter 2*, used the Saturn version as a basis for the PC conversion. The arcade original uses three times more polygons

Sega success

Sega's Japanese division has released 15 titles in the PC market so far, including heavyweight coin-op ports such as *Virtua Fighter Remix*, *Panzer Dragoon*, *Sega Rally Championship* and *Daytona USA*. Oddly enough, its best-selling title in its domestic market is a screensaver spin-off from its Saturn series, *Sakura Taisen*, which has amassed 50,000 sales – humble in Japanese terms maybe, but impressive for a format with little established market presence in Japan's games market. A hardware bundling deal ensured healthy sales for *Virtual On*, which managed 600,000 units when it was packaged with W95-compatible NEC PC98 computers and clones, while its legendary beat 'em up, *Virtua Fighter PC*, clocked up 50,000 sales through a similar strategy. The rapid growth of the PC market in Japan means that bundling has become a big business.



Akira Kozu is the planner of *WorldWide Soccer '97* for the PC – a conversion of the Saturn game of the same title. The game is released in September











***Virtua Fighter 2* was converted to the Saturn with surprising accuracy, but the PC conversion poses more problems. For some reason, Sega's PC developers have chosen not to take advantage of 3D accelerators such as PowerVR**

presently studying it. There is also D3D, but it's still a little bit early. If lots of games are released using a particular card, Sega Enterprises will develop on it. We are waiting to see where the market is going. We do not have any particular agreement with any company. We want to consider all the 3D cards and then decide.

Edge: How powerful is Model 2 compared to the PC?

HO: Model 2 is about four times as powerful as a PC. On the PC we're having to recreate things that were originally designed for a Model 2 board. It isn't easy. Having said that, certain aspects of the PC have the edge on Model 2. It is very difficult – in fact, almost impossible – to produce a 100%-accurate conversion from Model 2 to PC. But we can create something that looks almost the same.

Edge: What kind of hardware would be needed for a conversion of *Virtua Fighter 3* to the PC ?

HO: Considering the PC's present capabilities, it's impossible. But with lots of imagination, a 300MHz Pentium II with an Advanced Graphics Port, a graphics board with higher capabilities than the 3Dfx board and about 100Mb RAM, we would be able to provide only half of Model 3's capabilities. But such a configuration would allow us to run some converted Model 2 games accurately. Don't forget that Model 3 can capable of 2.5 times more polygons than Model 2, and considering the texture data and the numerous effects available on Model 3, it is really four or five times more powerful than Model 2. We can make games that look like the same but it is impossible to make exactly the same games on PC.



PC *WorldWide Soccer '97* will be playable over a local network. The translation of the Saturn controls to a four-button PC pad has caused problems, though

Edge: *Virtua Fighter 2* runs at 60 fps in its coin-op form. Presumably the PC version won't be able to match this...

HO: This is due to the limitations of the PCI bus in today's PCs. Data from the VRAM to the main memory has to go through the PCI. However, the bus is too small and is not directly related to processor speed. The arrival of AGP [Advanced Graphics Port] will allow a faster flow of data and a 60fps screen update. No matter how powerful the video card or processor, the PCI is always the limiting factor. That is why we are looking to AGP for future developments and keeping an eye on board or chip vendors that can use this technology. Model 3 conversions will still be hard, though...

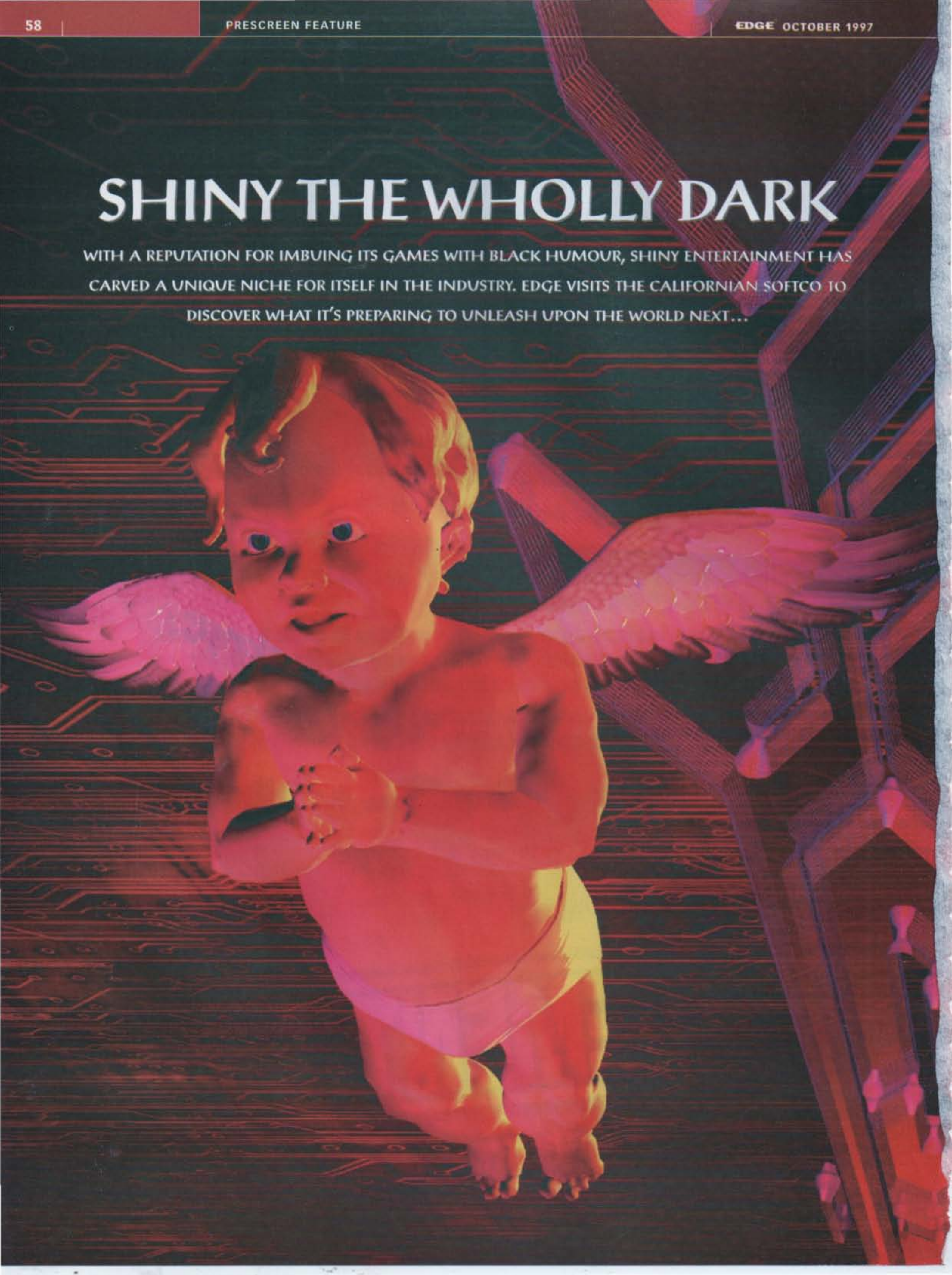
Edge: If Model 3 ports are so difficult, isn't it a problem that Model 2 is now gradually being usurped by its big brother?

HO: We will be producing more and more original software. In addition, we want to concentrate on adapting software intelligently for the PC market. For example, we can develop the PC version of *Daytona* with more tracks and newer effects. We want our games to be closer to other companies' PC games and not just straight conversions.

Edge: Are you targeting the Japanese market specifically?

HO: No, each market has its own characteristics. In the US, action and adventure games are popular, as well as wargames and flight simulators. Europe is slightly different – there seems to be a lot of RPG and adventure games. But if you look at the Japanese market, there are no prominent genres – there are just simulations or adult software. It's a shame, but these two genres represent almost all of the Japanese PC market. Sega Enterprises, if it is to make an impact on the PC market, needs to change this situation. As in Europe or the US, different genres should be available.

As you'd expect, Sega of Japan will be in charge of the Japanese market, but some titles, like *Virtua Fighter*, *Sega Rally* and *Virtual On*, will be given a worldwide release. On the other hand, some titles will be released only in specific areas, like *Bug Too* or *Sonic Blast* in the US. For Japan, we will release titles like the *Sakura Taisen* screensaver, which has been a great success for us.'



SHINY THE WHOLLY DARK

WITH A REPUTATION FOR IMBUING ITS GAMES WITH BLACK HUMOUR, SHINY ENTERTAINMENT HAS CARVED A UNIQUE NICHE FOR ITSELF IN THE INDUSTRY. EDGE VISITS THE CALIFORNIAN SOFTCO TO DISCOVER WHAT IT'S PREPARING TO UNLEASH UPON THE WORLD NEXT...

The tiny cellphone rings incessantly. **David Perry**, president of Shiny Entertainment, is never far from a deal. If the caller asks, he's always 'very well, very well,' and he means it. Today, as **Edge** arrives at the firm's Laguna Beach office, Perry is knee deep in two potentially lucrative deals. The first, and by the look on his face, the most frustrating, is the PlayStation conversion of his recent PC hit, *MDK*. The external codeshop handling the project is finding that pleasing David Perry is not easy. In fact, it's downright near impossible. He demands new levels, secret areas, smoother animations and fewer glitches – in fact, no glitches. By the time he's finished the call, however, the team at codeshop Neversoft are inspired – raring to go. Criticism, for Perry, has to be constructive.

'If you can't solve the problem you see, then don't mention the problem,' he says. 'It's something of a mantra around here.'

The second deal (and the one that's racking up the phone calls) is with a TV network which wants to turn *MDK* into a children's cartoon series. This is familiar territory for Perry, whose legendary dealmaking skills paved the way for the cartoon syndication of his most famous creation, *Earthworm Jim*. The network has just booked a second season of that series and it's beginning to look as if Kurt and his cronies will become a regular Saturday morning fixture for millions of children by this time next year. The toy deal is, of course, already in the bag.

'It's a funny thing,' Perry muses, leaning back in his chair, 'but the wheel only spins once a year for TV deals. Once a year they decide what gets the green light, and what gets thrown off the schedule. My attitude is that with the effort that goes into creating the characters and plots for these games, we shouldn't just throw the whole thing away once the game's out the door. When that wheel spins, and they start looking, Shiny throws its chip onto the table, where other companies might not.'

If that sounds like luck, then Shiny Entertainment must be just about the luckiest developer on the planet. *Earthworm Jim* is already a kid's toy, a videogame, a cartoon and even a bedspread. There's already talk of a full, feature length, live-action *Earthworm Jim* movie. With Batman's fortunes taking a turn for the worse recently, the bionic worm may yet have his 15 minutes of fame.

Shiny's influence has always belied its relatively small size (the number of staff at the company hovers around 30). It's thanks largely to Perry, who, although now too busy to program, marries the twin responsibilities of nurturing the programming teams and setting the creative agenda for the entire company. Games without innovation, for Shiny, are a waste of time. Although much of its work takes place within long-established genres, it rarely fails to find a new angle of attack. *Earthworm Jim* may have been just another platformer to some, but to many it showed the vast majority of 16bit console games up for the ill-conceived and paint-by-numbers titles they were. The variety of gameplay (puppy catching and the 'pocket-rocket' sections) that gave Jim his own, distinctive, style has become something of a trademark for the Laguna Beach codeshop.

It's not all a bed of roses, however. Perry has recently had the twin headaches of losing two of his most valued and long-standing partners, Nick Bruty and Bob Stevenson, and having to re-staff the key project teams, most damagingly *The Wild 9*, which is already a year overdue. Stevenson and Bruty worked with Perry for almost ten years, and Bruty was instrumental in the formation of Shiny Entertainment following the completion of *Aladdin* for Virgin in 1994. They will be sorely missed. Rumours abound as to why they decided to leave the company they'd worked so hard to establish, particularly as their last game, *MDK*, has become such a success, selling over 500,000 copies worldwide. Perry seems happy to put across his side of the story. 'It is a huge step to start your own team, and in my case I had to sign my life away and borrow millions of dollars. Nick, having seen what possibilities there are out there, has decided to push ahead with his own thing.'

Bruty has a point to prove, as Doug TenNapel, the last person to leave Shiny to try 'his own thing', failed terribly, achieving sales of around only 30,000-40,000 units with his puzzle game, *Neverhood*. By releasing Bruty early from his Shiny contract, Perry has given him a chance to secure a deal with Interplay, which will publish his first game.

'In the meantime,' Perry says, 'Nick and I are working on the TV show and toy line for *MDK*. We have great hopes for the property, and I hope that someday – when I retire – that we might get together and do something cool again.'

'IF YOU CAN'T SOLVE THE PROBLEM YOU SEE, THEN DON'T MENTION THE PROBLEM. IT'S SOMETHING OF A MANTRA AROUND HERE'

With John Romero, Sid Meier, Chris Roberts and Peter Molyneux all striking out on their own, it does make independence look easy, but setting up on your own, as Perry did with Shiny in 1994, is a risky business.

'There was no real precedent for going it alone in those days,' he recalls. 'It was a pretty hard thing to do, and to get backing wasn't easy. We left the security of Virgin because we wanted to deliver the kind of games that we *wanted* to make. We wanted a bigger slice of the cake, creatively and financially, but it was a big risk. We've been pretty fortunate, in that all of Shiny's games so far [he leans across and touches the wood of his desk] have been hits.'

To keep the momentum going is not easy. As well as the loss of Bruty and Stevenson, Shiny has had terrible problems with its teams. A demoralising series of personality clashes, cultural rifts and petty rivalries has left Perry with a late game. *The Wild 9* is the first ever Shiny game to slip beyond its due date. Despite employing a few rotten apples (who were, to their eternal surprise, sacked) Perry is confident that Shiny is, after a tumultuous six months, firing on all cylinders. He's especially pleased with the programmer he recently acquired from the recently defunct Scavenger studios. **Michael Persson** ('Saxs') is responsible for creating one of the most important 3D graphics engines yet seen on the PC. The technical capabilities of the Saxs Engine, as it has been dubbed, are well beyond that of id's revamped *Quake* code, and pave ▶





The cherub (top) is the star of *Messiah*, created by (left to right) Chris Felts, Michael 'Saxs' Persson (an ex-Scavenger employee), Gabe Roundtree, Darran Hurlbut and Mike Damian







***Messiah* is perhaps Shiny's most ambitious project to date. The 3D engine is nothing short of revolutionary. From a distance, it looks as if these character models are voxel-based, but in fact they utilise up to 8,000 polygons each**

◀ the way for the first truly scaleable games – something of a holy grail for a PC industry still shackled by the need to appeal to the lowest common denominator, currently the Pentium P133.

Although the engine will be used in many more Shiny games, for now it is confined to its forthcoming *Messiah*. The game has already attracted much attention for its controversial title (which has been picked up on by the usual assortment of religious nuts in the hyper-sensitive US) and its leftfield premise. The player has to pilot a cherub around a futuristic/industrial world using the possessed bodies of its inhabitants to wreak God's wrath upon the sinful population, which includes, among others, a prostitute. It is also the first game, so Perry claims, to include a motion-captured dwarf. Selling that as a cartoon or a toy range is likely to present a few problems – heaven knows what the bedspread would look like.

What is remarkable about Shiny's new graphics technology is that it does away with the need to store memory-hungry character models in RAM. The way that most 3D games currently work is to keep three or four models, of varying detail and complexity, in memory. As the player moves closer to a monster, for example, the game loads the next model and updates the textures accordingly. Fitting all of this into RAM is no easy task, so, until now, 3D games have tended to shy away from displaying more than two or three characters at a time, a problem highlighted by id's groundbreaking, but relatively enemy-light, *Quake*.

Instead of remembering lots of models, each with varying levels of detail, the Saxs Engine stores only the 'shape' of the character, and the algorithms do the rest, building up a model of the character using anything from 80 to 800 polygons. The number of polys used to form the model is revised every frame, and will always try to get as close to the 'shape' as possible. The shape itself is derived from a hi-res *3D Studio* render of the character, simplified and turned into a series of patches, or 'b-splines', which have no volume (and require virtually no processing power). The polygons are added and then the texture-skin is stretched around the model. The really clever thing about it is that as the camera zooms in and out, the engine is smart enough to figure out which polygons it can lose without affecting the integrity of the character. The result is a model that looks almost as good at 400 polys as it does at 1,000.





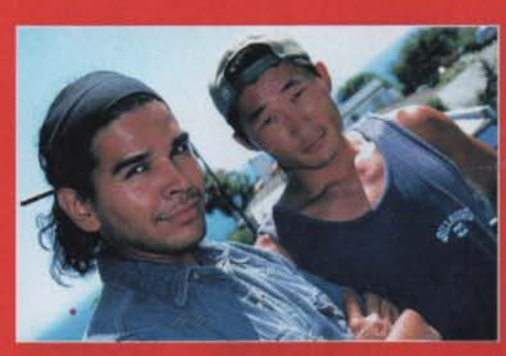




The levels, designed by Mike Damian, will feature puzzles, traps and moving scenery



The dark environments bear an unsurprising similarity to the canned Scavenger title, *Terminus* (see E34)



The world's smallest development team? Artist Joby Otero (left) and programmer Robert Suh are very serious about their unusual heli sim, *Fly By Wire*





Though still in the early stages of development, *Fly By Wire* already looks like being tremendous fun

Michael Persson is understandably pleased with his creation. 'There's no real limit to how many polygons we can use to generate the characters,' he explains. 'It'll be a while before the processors can outstrip the capabilities of the engine. The current limit is 8,000 polygons per character, but it depends on how complex the shape mesh is. If I wanted to, I could include enough detail to double that number, but there's no point at the moment, as you'd need an incredibly powerful processor.'

This scaleability is the real beauty of the engine. It represents programming at its most elegant, its most efficient and its purest. Its closest realworld relative would be something like a DNA strand, infinitesimally small but incorporating all the mathematical information needed to grow a complete being. The technique currently employed by programmers to create 3D characters is akin to ignoring the DNA and instead attempting to synthesise every cell of the human body individually and then assemble them. The Saxs Engine is so revolutionary, in fact, that Shiny is already in the advanced stages of patenting it, in the hope of licensing it to other companies. *Quake 3*, perhaps?

Elsewhere in the building, away from the motion-captured dwarves and prostitutes of *Messiah*, is perhaps the smallest development team currently at work in the industry. Programmer Robert Suh and artist Joby Otero are in the midst of bringing one of Perry's own pet projects, *Fly By Wire*, to the small screen. It's essentially a radio-controlled helicopter simulator than gives the player a model chopper to pilot. The gameplay is simple but effective, resembling *PilotWings 64* in many respects. Courses include floating rings to fly through, extra points for stunts and on-target landings (at one point players have to land the helicopter on a moving vehicle), and time-trial races through narrow canyons. But what really distinguishes this 'toy', as Perry describes it, is its control method. *Fly By* ▶



Shiny's president, David Perry, intends to strike a deal to manufacture an RC-style controller for the PC







The gameplay will superficially resemble Nintendo's *PilotWings* series, with hoops, targets and time trials

TOY STORIES



The licensed toy business is worth a staggering $70bn per year in North America alone. David Perry, with Earthworm Jim, may only have garnered a minuscule bite of the apple, but it's significant nonetheless. Apart from Jim, the only other videogame characters to be truly immortalised as toys are Sonic, the *SFII* crew and Mario. That's hardly surprising, considering their global sales record and the combined might of NCL, Capcom and Sega Japan, but when Earthworm Jim first appeared in plastic, Shiny was still a relatively small thirdparty developer. So how did it happen?

'You have to prove a lot of things when you're trying to get people at a network or a toy company to accept your character,' says Perry. 'You need to prove your character is easily recognisable, unique, will appeal to the kids, and bring something new into the market place. That's not easy. Getting in the door is never easy, particularly with the TV guys. There's a trick I use. I offer to write a game for them, and they bring me in. I listen to their ideas and then tell them why they wouldn't make very good videogames. Then I remind them about *DKC* selling seven million units and that the videogame industry turns more profit than movies, and then I've got their attention. Then I tell them I have a great videogame property which I think would work well in the TV and toy world, and they're suddenly really interested.'



Shiny Entertainment has so far managed to produce only hits in the four years since Dave Perry (centre back) left Virgin, and there's currently nothing to suggest that it won't continue



***The Wild 9* is Shiny's most troubled title, having lost its way following upheavals within the design team**

Wire will be released first on the PlayStation (although, currently, the PC version is setting the pace) and will take full advantage of Sony's dual analogue controller. For the PC version, Shiny is currently looking into reproducing a radio control-style analogue unit in conjunction with one of the bigger joystick manufacturers. In common with Nintendo's *Wave Race 64*, the physics model demands analogue control. Programmer Robert Suh has painstakingly reconstructed the precise physics involved in flying a helicopter, and it will take most gamers hours to get to grips with the basic manoeuvres, a factor that would, ordinarily, count against it. Instead, the challenge of mastering the controls, and the resultant euphoria that accompanies a perfect landing or hoop hit, is enough to keep the player coming back.

'I guess I'm trying to prove a point with this game,' admits Perry. 'You don't need these huge, bloated teams and enormous budgets to produce a simple, playable game. In fact, I'm calling it a toy rather than a game. Once you've got the handling down, it's going to be a real pick-up-and-play title. Both the PC and PlayStation version will load virtually instantly, and you'll be thrown right into the game, without all that prolonged setup stuff and pages of menus.'

The emphasis is most definitely on the 'toy'. It may take weeks to master, but the instant load and instant appeal of *Fly By Wire* should make proving that point easy enough. It is the antithesis of *The Wild 9*, with a small team to avoid personality clashes, a small budget to take the pressure off deadlines, and an elegantly simple premise. It's a game without the need for complex artwork and level designs or endless revisions. It's an example, claims Perry, of how Shiny is maturing as a company.

'If you have pure talent working on a game, with pure passion, without all the meetings and directives and all that other stuff, then you're going to get a better game, I think. The key is giving the team a stake in what they're working on. We have a system here where we pay royalties to each team, which is divided up between them, so if they hire another person, they get a smaller cut of the royaltie. After the staffing problems I had with *The Wild 9*, I've realised that it shouldn't necessarily be me who picks the team members, but rather those who will have to work with that person. It's working, so far.'

As **Edge** prepares to leave Shiny's Laguna studio, Perry can't help pointing out the lone Englishman sitting hunched over his PC workstation. Martin Brownlow has no Californian tan, is dressed all in black, and is obsessed with his most recent creation, a 3D landscape engine that draws polygon ground detail right up to the horizon, with no apparent need for fogging. Before **Edge** can launch into any questions, however, Perry is already leading the way to the door. Another time, perhaps.

'IF YOU HAVE PURE TALENT WORKING ON A GAME, WITHOUT ALL THE MEETINGS AND DIRECTIVES AND STUFF, YOU'RE GOING TO MAKE A BETTER GAME'







Shiny claims that PlayStation title *The Wild 9* will ship by Spring next year. Gamers can expect the usual Shiny mix of gameplay styles plus a healthy dose of dark-hued humour (courtesy of the 'torture' weapon)



THE CHEAT FACTORY

Edge visits Datel Game Products, a fiercely independent company at the cutting egde of videogaming gadgetry

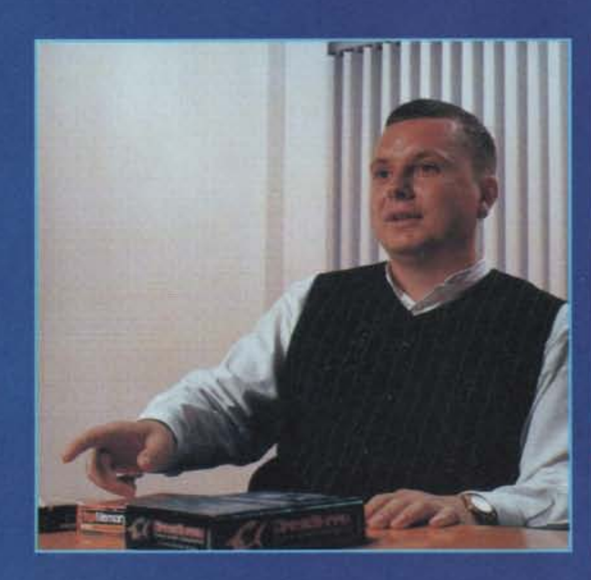
'A lot of people say, God, just what is the point of cheat cartridges – that just defeats the object,' says **Wayne Beckett**, production development manager at Datel Game Products. For 16 years this Staffordshire-based manufacturer has been supplying videogamers with all manner of unofficial add-ons, some of which being specifically aimed at allowing users to twist and shape their software collections on a whim. He's responding to allegations that cheating at games is inherently wrong, that they should be played the way that their manufacturers originally intended. 'You'd certainly be surprised at the amount of people who buy games, get them home and play them all the way through to the end using cheats straight away. That's fine, but I wouldn't do it myself.'

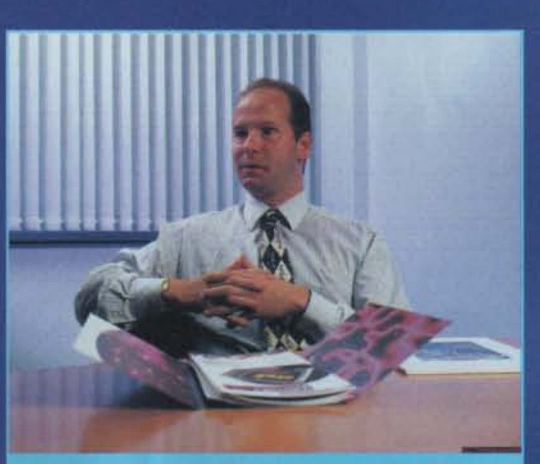
'The original philosophy,' he continues, 'was based around the fact that you'd be playing a game and get to, say, level seven, and die; you'd go back to the beginning and then get back to level seven and die again, and so on. And you get fed up with spending an hour getting to a point that you know you're going to really struggle with, so you get to that point, enable a cheat, get past it, then switch it off and carry on as normal.'

A fair point. But where Datel is concerned, that isn't the only point.

'What people really like is what else we can do to games,' explains Beckett. 'I mean, everyone's played *Super Mario 64* to death, but then you use our latest product and you get "Limbo Mario" mode, where he walks around in a limbo style, or "Can't be Flamin' Arsed" mode – which we're still trying to get working – which stops Mario's trousers catching on fire when he hits lava, or another mode which lets you walk up hills. It's all about adding an extra element to the game that wasn't meant to be there originally.'

'It's just like it was in the days of the SNES,' continues **Mark Wallace**, Datel's product support





Product support manager Mark Wallace (left) and production development manager Wayne Beckett – who admits, 'To reverse engineer the N64 was a *lot* of work'

manager, 'with games like the original version of *Street Fighter II*, where you could change the colour of the characters' clothes. And that's what we're really concentrating on now – working on the really clever cheats rather than simply giving you unlimited lives or whatever.'

The product which makes all this possible is the latest in a long line of Action Replay devices from Datel. The Nintendo 64 version, which, much like its Super Nintendo forebear, sits between the base unit and 'target' cartridge, allowing the code exchanged between the two to be adapted in order to create special effects.

Rather than being merely a 64bit version of a well-known product, with no utilisation of advances in technology – which is what Datel's competitors would no doubt have delivered – the N64 Action Replay has something else up its sleeve, as Beckett explains: 'This version is unique in that it has a slot on the back which takes smart cards – much like those used with satellite television decoders. You can just slide cards in and update the cheats. And there are a lot of different ways of doing this – we've got 'master cards', for example, which upgrade the entire set of cheats in the AR, which we're going to be giving to distributors and some major retailers. The smart-card slot also functions as a comms link, which connects to a parallel port – you'll have a card attached to a cable – so that data can be downloaded from a PC.'

The N64 Action Replay is a perfect demonstration of Datel's supreme understanding and mastery of cutting-edge videogame hardware. The unit's creation, and the creation of the many other products which make up Datel's formidable range, was made possible through reverse engineering – a process which involves taking a machine from Nintendo, Sony or Sega and getting under the bonnet to see what makes them tick.

So how is that done?

'I don't know how much I want to give away about this,' laughs Beckett. 'I suppose that reverse engineering is more of an art than a science, really. We have a piece of equipment called a Logic Analyser, which runs at a really high speed, and it stores signals – waveforms, etc – which we can then examine. If something happens within ten microseconds, you're ▶

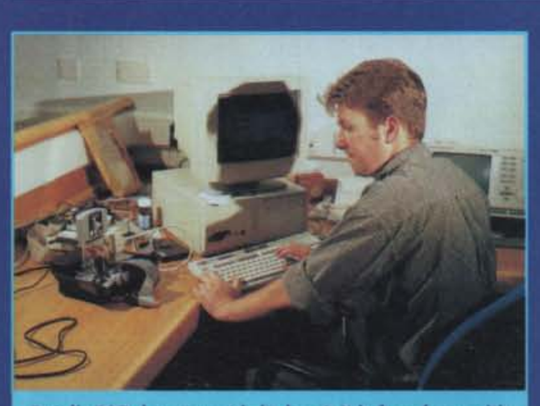
Linear paging

'Our original N64 memory pack, the Memory Card Plus, had four pages of 32K which you switched between manually,' explains Wayne Beckett. 'Then we discovered that Nintendo hadn't put a 32K limit on memory cards at all, and that's when we came up with "Linear Paging", which we've used in two new versions, one with a 128K capacity [below] and one with 512K [bottom].'

Pulling up the N64's memory manager screen, Beckett demonstrates; where once the memory card showed 123 blocks, it now reads 998.

'The irony is,' he laughs, 'we did it "wrong" first, and then everyone else copied the "wrong" way of doing it.'

'I suppose reverse engineering is more of an art than a science, really. It involves many elements, including guesswork'



Datel's R&D department is its heart. It is from here, with high-end kit, that the company's successes are born



N64 Shockwave

Datel's new Shockwave add-on (below), emulates Nintendo's Jolt Pack and also has a one-megabit memory card feature on-board.

It's most inventive feature, though, is its ability to give jolting sensations to non-Jolt-Pack-compatible titles, by picking up audio from TV speakers. The device has eight modes of sensitivity in order to fine tune it for the best effect, and works most effectively with beat 'em ups such as *War Gods* and *Killer Instinct*.

Retailing at £25, the Shockwave doesn't even require external batteries.

With the amount of features it packs in – and at such a reasonable price – it's set to become an essential N64 gamer's companion.



◄ not going to say, Hey, look, that's not working right – you can't do it. So you use the analyser, which runs at 200MHz, and it takes a sample over time, which you can then look at and say, 'A-ha, at 1.2 microseconds there's a glitch, and then you can go in and fix it. But it's a process involving all sorts of elements – there's guesswork involved, trial and error. But this is like trying to explain how a car works – there are so many different parts to it that I couldn't really begin to explain it fully.'

There is certainly something else going on. Talent and sheer dedication it would appear, judging by how quickly Datel's engineers were able to get to grips with Nintendo's own pioneering N64 hardware add-on.

'We reverse engineered the Jolt Pack in a couple of days; we more or less knew how the whole thing worked before it arrived. In fact, we invented this product, and the Linear Page memory concept [see 'Linear paging'], within a week. Certain things are very, very intensive, but most of this was the work of our design engineer, Roy, because there's a lot of analogue stuff in here, and that was the hard bit to get right. Nintendo's Jolt Pack is a very simple device, there's just a motor with a little cam on it which spins around when it's told to.'

The sensation Datel's version (dubbed the Shockwave) delivers during play certainly appears to emulate Nintendo's device perfectly – chiefly because the motor inside doing the work is in fact the same model as the one used by Nintendo. Typically of Datel, though, the Shockwave does everything that could be asked of it as 'merely a clone' and other things besides. Along with behaving as a one-meg-capacity memory card, it can be used to bring a vibrating sensation to games other than those specifically programmed to use the feature. A small microphone (similar to those used in mobile phones) situated in the front of the unit picks up audio signals from players' speakers and translates them into 'jolting' data. An ingenious touch.

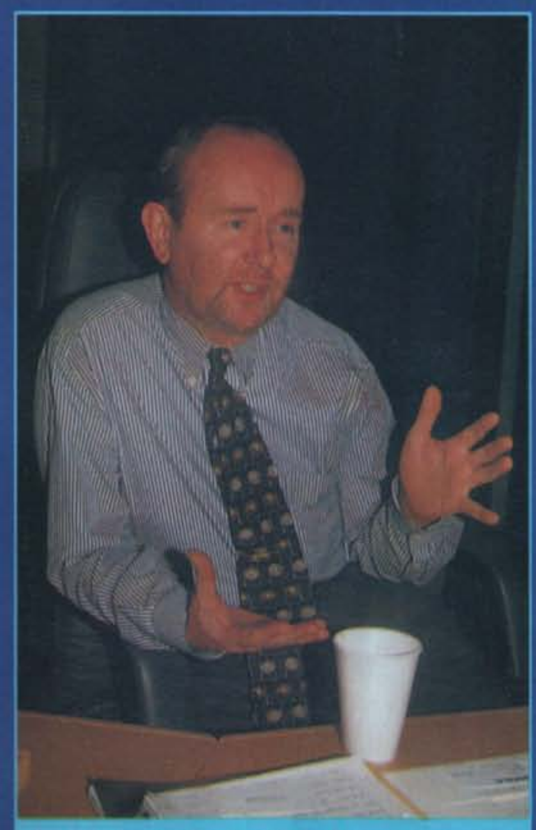
> 'We reverse engineered the Jolt Pack in a couple of days; we more or less knew how it worked before it arrived'

Datel is obviously capable of taking another company's idea and improving upon it, but ironically the company is in the unfortunate position of being simply ripped off by add-on manufacturers in the Far East, resulting in potential losses in revenue that run into millions of pounds each year.

'If you open up a Spook memory card you'll see that it's just the same as ours,' reveals Beckett. 'We often think of ourselves as the "Taiwanese research and development team", because they don't need one. I mean, why should they bother even coming up with ideas for new products when they can just copy ours? There are lots of different ways of producing memory cards, but other companies will just wait to see how we do it. With the original N64 memory card, we went about it the "wrong" way, really, but everyone went ahead and copied us. It's very irritating, but we get used to it.'

Can't anything be done about it?

'Well, the N64 Action Replay was a very expensive product to design for us, and we're not going to let that be copied,' Beckett responds, smiling. 'We've built in encryption systems galore...'



MD Mike Connors has been in the business since 1981, but hasn't lost his appetite: 'I think we're pitting our wits against other companies, almost like it's a big game'

Like all of the best UK success stories, Datel's beginnings are humble, as managing director **Mike Connors** explains: 'I had an electronics shop in





One of Datel's unique aspects is its all-under-one-roof manufacturing facility, which incorporates unit-assembly lines (above) and the printing of product packaging (left)

Hanley, selling bits and bobs of electronics. CB radio was big in 1979/80, and it was just dying and computers happened – people were saying, Have you got this? And I noticed that there were a couple of retailers selling mail-order products for the Spectrum. We used to try to buy products from companies like Fuller, and they just couldn't make enough. So we thought, hold on, and we started to look at what was obviously this growth area, which lasted through to about '84. It just boomed around us.'

This opportunist streak – born from Connors' enthusiasm for invention which hasn't waned since those first days of electronics tinkering (he is still essentially the chief ideas man, even though he could be putting his feet up by now and letting his employees do all the legwork) – has seen Datel become a worldwide force in gaming peripherals. In fact, its penetration into the US and Japanese markets accounts for around 90% of its sales. For a company whose turnover last year was $25m – and is predicted to reach the $30m mark this year – it's clear that Datel is a big player in the thirdparty hardware market.

'There aren't very many UK companies selling into Japan like we do,' Connors says, 'but our American success is more pleasing in some respects. Our US distributor actually has its own manufacturing facility, which is about a hundred times the size of ours, with 2,200 workers, and it's interesting that they have to buy product from us. And what they buy from us is the high-end section of their range – the rest of what they do is mainly joypads – or 'boxes with buttons on', as we call them. It's pleasing, but it doesn't surprise me because what we do is reasonably rare...' He thinks for a moment about this before quickly adding, 'It doesn't make us great, though – outside of our sphere it's not a big deal.' This kind of modesty seems to be typical of the whole company, from the MD to the R&D guys to the assembly-line workers. It is a refreshing attitude for an organisation that is, in a sense, at the very forefront of videogame hardware development, and what makes Datel one of the UK's greatest exports.

'We often think of ourselves as the "Taiwanese research and development team", because they don't need one'



The Shockwave, like all of Datel's products, uses a plastic casing designed and moulded at its own plant

The operation

Datel's headquarters is a hive of activity, and contains just about every element which goes into the design and manufacture of its products.

The operation includes an R&D facility (which includes a dedicated circuit-board design section), casing design (performed on CGI kit), moulding equipment (both injection, for packaging, and plastic, for the actual product casings), unit-assembly lines, and printing and binding facilities for packaging and instructions.

This setup gives Datel such an extreme level of flexibility that it can identify an opportunity in the market and get a product to the shelves in an amazingly short amount of time.

The most important part of the whole equation? 'R&D,' believes Mike Connors. 'Without R&D we'd be just like a Chinese company, although nowhere near as efficient.'



EDGE®

Fifty issues on the cutting edge

Over the past four years, the videogames industry has changed almost beyond recognition. With new platforms appearing and disappearing at a breathtaking rate, only one magazine has managed to keep up with the pace of change, analysing key technologies and predicting winners and losers with unrivalled accuracy. That magazine is **Edge.**

Over the next ten pages, **Edge** takes a look at recent videogame history and picks out the defining moments, conflicts and technologies which have shaped the present and will no doubt influence the future...

Did I really say that?

'Jaguar will revolutionise the state of home entertainment. It is clearly the wave of the future.'

***Sam Tramiel**, president of Atari, showing almost surreal optimism about the fate of his 64bit console (E1)*

'Nintendo have proven to be a great toy company but they are way out of position to compete in the new multimedia market.'

***Trip Hawkins** demonstrates his ability to accurately size up competitors (E2)*

'We don't want people to lose out because they bought the wrong standard. My dad bought a V2000 and then a Betamax, so I know what I'm talking about!'

*Panasonic's **Philip Kipling** on the war between 3DO and CD-i. **Edge** wonders which one his dad went for (E3).*

'Its not a conventional beat 'em up. We're using a lot of artificial intelligence... We'll definitely have one over on *SFII*.'

***Sean Griffiths**, Rise of the Robots designer, showing why he never took up a career as a videogame reviewer (E3)*

1 9 9 3

Perhaps more than any other year, 1993 represented a crossroads for the videogames industry. The home-computer market was virtually dead, with both Atari and Commodore desperately knocking out updates of their once-solid STs and Amigas to a largely unimpressed public. They were not panicking alone, though – the end was also in sight for 16bit consoles. Everyone, it seemed, was looking for the next technological bandwagon to jump on. An almighty battle was on the horizon for dominance of whatever standard appeared...

CD-ROM: the future?

The most important technological advance of the early 1990s was undoubtedly CD-ROM, which boasted previously undreamed of storage space and the ability to handle audio CDs and FMV. It looked as though, in the right console or computer, it could provide the ultimate multimedia experience. At the time, however, many were sceptical, with its slow data-retrieval speed and lack of a writeable element most often cited as negative factors.



Although rather short on truly classic games, 1993 did boast LucasArts' zany point-and-click adventure, *Sam and Max Hit the Road* (left), and Crystal Dynamics' fast, thoroughly challenging 3DO racer, *Crash 'n' Burn*

Epic failure

The console wars which erupted in '93 were unique simply because everyone lost. Every major platform launched during this fraught 12 months was a dodo by the end of '94.

First on this tragic list was Sega's Mega CD. Launched in April, it was essentially a CD-ROM unit that was slapped onto a Mega Drive, and for a long time its software catalogue consisted of Mega Drive-standard games with nice intros, CD music and a few ropey FMV sequences. Although decent software did come along in the shape of Core's *Thunderhawk* and Sega's own *Sonic CD*, the format will mostly be remembered for substandard interactive movies like the god-awful *Night Trap*.

But at least it will be remembered for something, unlike Commodore's CD32 – the world's first 32bit console. Despite the fact that this was just an Amiga with no keyboard and a CD-ROM slapped on the side (can you see a pattern forming here?), the once-powerful company confidently predicted that it would ship 400,000 units across Europe by the end of January '94. At the same time, **David Pleasance**, then MD of Commodore UK, announced meekly, 'We hope to take sales from the consoles, not from our own flagship machine.' As it happens, he needn't have worried about the latter.

And then there was the CD-i, which Philips envisaged as a complete multimedia platform. The first machine was launched in 1991 as a combined audio, video and game CD player. Although there were around 85 titles available, most were tired edutainment and multimedia encyclopedia affairs, and at around £500 the whole thing was too

Four years in the life of...

Jez San Argonaut

Edge: What were you doing in August 1993?
Jez San: Argonaut had just finished off *Star Fox* and was completing *Stunt Race* for Nintendo. We also kickstarted new hardware like ARC and TRIP. Both these are finally on sale today from our new US venture.
Edge: What's the biggest change you've noticed in the industry over the last four years?
JS: Polygon hardware grew up, allowing a new generation of 3D games to be created. Production values have become very important, but gameplay, not content, is still king.
Edge: What has been your best experience in the industry over the last four years?
JS: Seeing the sales for our Super FX games, which gave us considerable creative freedom. And recently, creating *Croc*.
Edge: And the worst?
JS: Seeing the (hopefully temporary) failure of Sega in the games market.
Edge: What do you expect to see in **Edge** 100?
JS: The death of polygons! Seriously. As polygon hardware gets faster and faster, and the polygons get smaller and smaller, it seems obvious that we need a new paradigm.

Issue 0

A rarely seen preview copy of **Edge**, which will no doubt turn up on 'Antiques Roadshow' in a few years, put the 3DO console on its cover and speculated about Sega's plans for the Saturn on the opening news spread. Psygnosis, too, came under scrutiny, as it prepared to enter the world of CD-ROM with its FMV-laden title, *Microcosm*. Fire, meanwhile, released a specialist *SFII* controller for £200. People had more money than sense back then, obviously.



Issue 1

The first **Edge** to hit the shelves began with a bitter feud between industry coffin-dodgers Commodore and Atari – both preparing to inflict new consoles on a frankly disinterested public. Also of interest were Sega's plans for its own TV channel and rumours about the company's forthcoming Saturn machine. FMV was also beginning to cause a stir, with several Hollywood studios expressing an avid interest in Philips' CD-i. Well, somebody had to...



Issue 2

The second issue of **Edge** took in the US unveiling of the Jaguar, but moved as quickly as possible on to early speculation about a Nintendo 'super-machine', due out in 1995. Meanwhile, boosted by a rise in interest in FMV, Philips announced a Digital Video add-on for its CD-i and a sequel to the machine's 'killer app', dodgy interactive movie *Voyeur*. Slightly more impressive, however, was *Ridge Racer*'s dominance of the 31st IAMMA show.

Four years in the life of...

Mark Lewis Electronic Arts



Edge: What were you doing in August 1993?
Mark Lewis: I guess, aside from enjoying sunshine, extended daylight and *Jungle Strike*, I was working too hard.
Edge: What's the biggest change you've noticed in the industry over the last four years?
ML: One thing is that the quality bar keeps getting raised in terms of hardware and software. Great gameplay is still the most important thing, but graphics, sound and interface have become increasingly important. The other change is that this business keeps attracting new creative talents, and it really keeps the heat on for all of us.
Edge: What has been your best experience in the industry over the last four years?
ML: Helping to open EA China and participating in EA's growth throughout the world.
Edge: And the worst?
ML: I'm not sure I want to talk about it!
Edge: What do you expect to see in **Edge** 100?
ML: Interplanetary gaming, smart personal machines, organic operating systems based on emotional response mechanisms, the thought police and the EA Network.

expensive for a public unsure about what multimedia was, and even more unsure about whether it actually gave a toss. Although a sleeker version was released in Autumn '93, and a DV cart allowing FMV playback followed later, the machine never really stood a chance.

Don't believe the hype

The CD-i's demise should have provided a clear message that calling a console a 'family multimedia entertainment unit' and then charging £500 for it was tantamount to commercial suicide. Parents weren't ready to take computer games seriously, and they certainly weren't prepared to pay £500 for a console. The SNES was only £199, after all – and that had decent software.

Unfortunately, the message was ignored, most dramatically by ex-EA chairman **Trip Hawkins**, who announced his 3DO standard at the June CES in Chicago. His dream was to create, yes, a family multimedia entertainment unit at a price of around £500. However, this would be no ordinary console, but rather a set of technical specs available to anyone who wanted to make their own unit.

Amidst the hype, though, industry pundits were already beginning to suspect something was up. Hawkins claimed the unit was 50 times faster than 16bit consoles, whereas the specs hinted at just three or four times. Hawkins claimed that 300 developers had signed up to work on 3DO games, but wasn't this only because it cost just a few hundred dollars to sign up, and there was no Nintendo-esque quality control?

Whatever the case, Panasonic's 3DO console – the FZ-1 – hit US shelves on October 4, packaged with a 3DO demo disc, Kodak Photo disc and a copy of Crystal Dynamics' passable futuristic racing game, *Crash 'n' Burn* (8/10, **E**3). Most stores only got one or two machines and it was said that many of those were returned just days later by disgruntled gamers expecting a lot more from the first credible 32bit system.

A brief mention should also go to Atari, whose Jaguar was also launched in 1993. It was hailed (by Atari) as the first 64bit console and the beginning of a new era. Unfortunately, although the machine did have some great custom technology, most of it was of 32bit or 16bit standard, incapable of supporting the 64bit CPU. It did at least manage a respectable retail roll out: 40,000 units shipped to stores in the US, and most were sold in days.

However, Atari later eerily predicted its machine's downfall. 'We've been insistent that the first Jaguar games that are being developed will show off its full potential,' boasted **Richard Millar**, VP of engineering at Atari. *Trevor McFur in Crescent Galaxy*, a launch title, received 4/10 in **E**5...

Disaster genre

The main problem with the early CD-ROM consoles was that they weren't powerful enough to process 3D graphics data in realtime. Howeever, developers were desperate to use this shiny new technology, so they stored masses of prerendered visuals on the CD and streamed it off in sections, thus creating the 'interactive movie' genre – the disaster of 1993.

Cue dozens of games which were little more than short, fuzzy films with one or two points where players could decide where to go next. FMV was even hailed by some as the future of interactive entertainment, which most gamers found hard to stomach. *Return to Zork*, *Night Trap*, *Mad Dog McCree* and The *Seventh Guest* were all pitiful examples of a genre which thankfully soon ran out of steam. ▶





Although the Amiga CD32 (left) and the CD-i both fought hard for domination of the next-generation CD-ROM market, neither was successful. Commodore's days as a key player were, sadly, numbered

Key games of 1993

Street Fighter II Turbo (SNES)
Ecco the Dolphin (Mega Drive)
Thunderhawk (Mega-CD)
Secret of Mana (SNES)
IndyCar (PC)
Sam and Max Hit the Road (PC)
Cannon Fodder (Amiga)
Dracula X (PC Engine)
Crash 'n' Burn (3DO)





Issue 3

In the opening news spread, **E**3 examined the strangely low-key US 3DO launch, noting that many stores hadn't even heard of the machine, while others had no point-of-sale material or demonstration machines. Atari, however, was determined to draw attention to its Jaguar console and proudly announced the machine's opening software line-up. This included *Trevor McFur in Crescent Galaxy* – arguably the worst name in videogame history.



Issue 4

E4 began with the revelation that Sony was developing a multimedia machine and had already pencilled in a late-'94 launch – a scoop which overshadowed the première of Philips' Digital Video cart and the delay to the launch of the Jaguar. On the periphery, a coin-op trade show held in London unveiled *Virtua Fighter* to British audiences for the first time, and a new Alien War attraction opened in London's Trocadero centre. A slow news month, then.



Issue 5

Sega's forthcoming Saturn console dominated the news section and furtive rumours concerning its technical specs hinted at a machine which would dwarf current CD-ROM consoles. Early conjecture about the PlayStation also figured highly, with another list of specs and news of a vital game deal with arcade stalwart Namco. The Jaguar's US launch was sadly ignored by an industry furiously deliberating over the Sony and Sega machines.

Did I really say that?

'All the problems were caused by the immensely positive way that the product was received, and we look on this as extremely exciting for the future.'

Atari's **Daryl Still** *tragically misreading the signs after the Jaguar's UK launch sellout* (**E7**)

'We're going to open up a whole new field of entertainment.'

Hiroshi Yamauchi *on the Virtual Boy* (**E19**)

'I think when Sony come to market, they might discover that they've underestimated how important cell animation is and overrated the importance of polygon rendering.'

Trip Hawkins *a veritable Nostradamus of the videogames world* (**E10**)

'I actually think that Mars is the best-positioned games machine, because it enables people to get into 32bit without having to shell out all the money.'

Ex-Sega Europe chief ***Nick Alexander*** *on Sega's least successful endeavour ever* (**E11**)

1 9 9 4

Whereas 1993 was a year of fervent activity, 1994 was characterised by anticipation and conjecture. Nintendo, Sega and Sony had all revealed that they were developing new consoles, but it would be at least a year before they appeared. Gamers were left with the choice of waiting indefinitely or opting for what was already available. However, as the year drew on, more and more scintillating details came to light about these machines, and quality software was proving a rare commodity on contemporary platforms...

How to launch a console

The key hype merchants in 1994 were unquestionably Sony, Nintendo and Sega. In a series of press releases, events and shows, each released gradually more revealing information about their plans to an increasingly ravenous videogame community.

In hindsight, though, it was perhaps Sony's single-minded determination to launch the PlayStation correctly that really stood out. The company's first decision was almost certainly the most important: to market the product as a games machine rather than a multimedia hybrid.

Sony then set about building a network of software contacts which could make up for its comparative lack of in-house talent. A key early ally was arcade giant Namco, which converted its brilliant arcade title, *Ridge Racer*, to the format. Sony now had its killer app...

A key element of Sony's success was undoubtedly its support of developers – PlayStation designer Ken Kutaragi personally saw Namco through the conversion process, advising on technical aspects of the machine. And this wasn't an isolated incident. Following consultation with potential developers, Sony produced a vast range of tools and graphics libraries, written specifically with developer ease of use in mind. Cue enthusiastic endorsement from software companies everywhere.

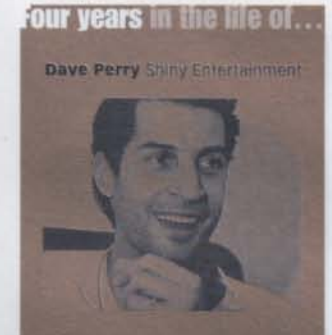
To understand what's going on takes ages

1994 was the year when Sega managed to confuse everyone with a nightmarish multiple-platform release schedule. The company announced that it was developing two next-gen consoles – the CD-ROM-based Saturn and a cartridge equivalent known as Jupiter. Many thought that Sega had been forced to upgrade the power of Saturn to match the PlayStation and was therefore marketing the latter as a low-cost alternative. But the company soon realised the folly of releasing two versions of the same thing, and Jupiter was canned.

However, on March 14 the company announced that Jupiter was now to be called Mars and would take the form of a 32bit upgrade to the Mega Drive, slightly

Four years in the life of...

Dave Perry Shiny Entertainment



Edge: What were you doing in August 1993?

DP: Hmmm... I thought issue one was in October 1993, the same month I started Shiny. I was asking my friends not to buy me a 3DO for Christmas, and I was still humming that damn music from *Aladdin*.

Edge: What's the biggest change you've noticed in the industry over the last four years?

DP: You can now play arcade-quality games at home. Also, websites give gamers a great link to games companies.

Edge: What has been your best experience in the industry over the last four years?

DP: Finding fresh, talented, focused, passionate people to help make our games, even if they are Scottish.

Edge: And the worst?

DP: Watching suntanned people with surfboards walking past my window on the way to the beach as I work through lunch.

Edge: What do you expect to see in **Edge** 100?

DP: CD video and audio footage of the games you're previewing and reviewing, with hyperlinks to an **Edge** server to keep the content updated. Also, I don't think you will be making the magazine on Apple Macs.





Namco's *Ridge Racer* (left) provided Sony with its PlayStation killer app, while *Virtua Fighter* performed the same function for the Saturn. The role of these games in the forthcoming 32bit conflict was crucial



Issue 6
1994's Winter CES opened the news section and was notable only for the general unwillingness of Sony, Sega and Nintendo to talk about their forthcoming machines. However, Sony did reveal details of the PlayStation to a group of British videogame developers, who, respectful of the strict NDAs they had signed, immediately got on the phone and told everyone about the machine's amazing realtime dinosaur demo and its revolutionary custom graphics hardware.



Issue 8
The May '94 issue of **Edge** saw Sega announcing its Mars project, Sony sending out PlayStation dev kits to avid softcos and 3DO dropping the price of its already unhealthy-looking console to $499. Atari, however, released the brilliant *Tempest 2000*, proving that it could at least get one thing right. Incidentally, a CD32 feature entitled 'Too little too late' hit the nail on the head with its first four words. Now, that's journalistic economy.



Issue 9
E9 lent its cover to *Taos*, a 'heterogeneous' operating system which promised to make inter-platform incompatibility a thing of the past before promptly disappearing without a trace. Meanwhile, Sega uncovered a mock-up of the Saturn and Sony began revealing PSX demos to a ravenous Japanese TV audience. The best a Spring '94 ECTS could manage, however, was a coin-op demo of *Rise of the Robots*, proving the event was doomed way before '96.



Four years in the life of...

Peter Molyneux Lionhead

Edge: What were you doing in August 1993?

Peter Molyneux: I actually remember when the first issue of **Edge** came into the office. We had just moved into our first proper office and I was working on *Theme Park*, as well as doing myriad management-type things.

Edge: What's the biggest change you've noticed in the industry over the last four years?

PM: People like Intel and Microsoft taking the industry so seriously, plus the rise of Sony and the pure professionalism of games today.

Edge: What has been your best experience in the industry over the last four years?

PM: Being searched in customs and then let off after being recognised as one of the designers of *Dungeon Keeper*.

Edge: And the worst?

PM: One year I oriented all Bullfrog's releases so they would come out before In-Din – just because I love receiving awards. Then, to my horror, Rod Cousens cancelled it.

Edge: What do you expect to see in **Edge** 100?

PM: Pentium 1000 is announced, EA purchases Microsoft, Lionhead finishes its first game (joke!).

less powerful than the Saturn but based on the same two-chip CPU setup. Mars was to be completely incompatible with both machines.

Sega confused gamers even further by giving Mars the name Genesis Super 32X in the US and calling it Mega Drive 32 in the UK. A Japanese launch was not expected due to the Mega Drive's tiny market share there, but it was finally announced that it would be launched, bizarrely, two weeks after the Saturn.

Somehow, in the midst of all this, the company also managed to update the Saturn and show it off to gamers in the same series of shows attended by Sony. In this case, it was *Virtua Fighter*, *Panzer Dragoon* and *Clockwork Knight* that were wowing gamers – but would they stay wowed in the face of the competition from Sony?

Home-perfect

Although there were significant internal differences between the PlayStation and Saturn (the former was a powerful polygon pusher, whereas the latter boasted strong 2D abilities), both were clearly very capable formats. So capable, in fact, that the huge gap which had always existed between home consoles and arcade coin-ops seemed to be diminishing.

Sega and Namco were not worried about their valuable arcade market, however, because both were working on more advanced technology – namely Model 2 and System 22. Instead, they used the power of the 32bit machines in cheap arcade boards: Namco's System 11 and Sega's ST-V (originally known as Titan).

This was a key event in the history of videogaming – it meant that for the first time, truly arcade-quality games would find their way to home consoles because, essentially, they were *developed* on consoles. It was the beginning of a cross-fertilisation process which has enriched both markets ever since.





Like the Amiga CD32 and CD-i before them, Atari's '64bit' Jaguar (left) and the 3DO console failed to make a lasting impression on gamers. They were effectively buried by the launches of the PlayStation and Saturn

Nintendo's annus horribilis

1994 was not a good year for Nintendo. Its profits were down, and its forthcoming Virtual Boy project was meeting widespread disinterest, even ridicule. Games like *Mario Bros VB*, *Mario Tennis* and *Telero Boxing* all looked appallingly retro and hardly used the machine's unusual 3D capabilities. Worse still, Project Reality – the technology created with Silicon Graphics – was not getting the hoped-for recognition. When two arcade games employing the system – *Cruis'n USA* and *Killer Instinct* – were revealed, many felt that they looked great but were totally derivative in terms of gameplay.

3D for PC

Things were still quiet on the PC front, but the machine was beginning to claw its way into the brave new world of 3D. Argonaut, RenderMorphics and Criterion all developed APIs designed to help PC programmers create 3D games, 3D Labs launched the first major 3D graphics accelerator, GLINT, and Intel's Pentium was imminent.

The next generation begins...

The Saturn launched in Japan on November 22. 200,000 machines sold out almost immediately and the launch was hailed as the most important hardware rollout in the history of videogames. Several days later, on December 3, the launch of the PlayStation was met with slightly less euphoria but still managed to attract huge queues.

However, despite its higher price (¥48,800 compared to ¥37,000) and a less convincing killer app (*Virtua Fighter* vs *Ridge Racer*), the Saturn seemed to have won the first round in a battle which would last the next two years. ▶

Key games of '94

Alone In The Dark 2 (PC)
Doom (PC)
Doom II (PC)
Ridge Racer (PlayStation)
Tempest 2000 (Jaguar)
Theme Park (PC)
Super Street Fighter II X (3DO)
Magic Carpet (PC)
Virtua Fighter (Saturn)
Little Big Adventure (PC)



Issue 11

The first truly comprehensive look at Sony's PlayStation rubbed pages this month with a Tokyo Toy Show report dominated by the recently redesigned Saturn. Demos of opening games *Virtua Fighter*, *Daytona* and *Panzer Dragoon* were primitive but impressive. Elsewhere, NEC revealed a successor to the PC Engine named PC FX, and a new 64bit video adaptor for the PC wowed Comdex showgoers in Atlanta. DX2 CPUs were, incidentally, still de rigeur.



Issue 12

64bit was the theme of **E**12, with details of both 3DO's M2 and Nintendo's Project Reality appearing in the news section. Nintendo, however, was desperate to prove that 16bit was still relevant, unveiling a near-complete version of Rare's visually stunning *Donkey Kong Country* at the Chicago CES. When asked about the gameplay, however, Shigeru Miyamoto nervously giggled, 'Ah, nice graphics,' before making a sharp getaway. A telling sign indeed.



Issue 15

E15 went straight for the cult market by revealing SNK's new Neo-Geo CD console, due for a UK launch later in the year. Early rumours concerning the Virtual Boy were also circulating, and even then the project was controversial. 1994's JAMMA show had more reliable fare on offer – *Virtua Fighter 2*, *Tekken* and *Virtua Cop* were all shown off in near-complete form – and a Saturn launch date was finally announced at the CSG show. 32bit warfare began.

Did I really say that?

'I think the Virtual Boy will prove very important.'

Gumpei Yokoi on the console that [illegible] his career (E18)

'The Sony product is just too expensive to be taken seriously and I can't see Sony focusing on a product that won't have the quantities needed due to the high price. It will be a player, but not a big one.'

Sam Tramiel, showing the keen foresight which served Atari so well (E18)

'We certainly intend to sell more 32Xs in 1995 than Saturns.'

Tom Kalinske, proving that intentions can often go awry (E19)

'Sure, it's great to watch the characters in Virtua Fighter 2, but you'll never experience the fear for your life that you find in Supreme Warrior when one of the bodyguards is about to pummel your face.'

Tom Zito of Digital Pictures modestly comparing his company's FMV beat 'em up to Sega's tour de force (E27)

1 9 9 5

Even in its opening weeks, 1995 looked like becoming a renaissance year for the videogames industry. The PlayStation and Saturn were both performing well in Japan, and there were other intriguing hardware developments on the way which had the potential to precipitate another leap in technology, just two years after the arrival of 32bit. 1994 was beginning to look like a quiet 12 months in comparison...

Thanks, Bill

While gamers were kept occupied by the machinations of Sony, Sega and Nintendo, many overlooked what was possibly the key event of the year: the launch of *Windows 95*. Although the new Microsoft GUI was the butt of much criticism, it infinitely improved the lot of the PC gamer.

Perhaps most importantly, *Windows 95* opened up the whole of the PC's memory to games. In the past, 32bit DOS titles like *Doom* and *Flight Unlimited* had to run through a DOS Xtender, which had to root about for extra memory not usually accessible to DOS software. *Windows 95* did away with all this, allowing games to run much faster.

Microsoft also introduced its DirectX series of APIs, specifically designed to help developers create 3D games for the PC. The most vital element of all this was Direct3D, a powerful realtime graphics API which allowed game designers easy access to the attributes of any 3D accelerator card which supported the Microsoft initiative.

Several companies announced their own combined 2D/3D accelerators, including nVidia, S3, Rendition and Virge. Unfortunately for them, VideoLogic and 3Dfx also revealed their dedicated 3D chipsets, both of which offering the polygon-pushing performance of medium-range arcade boards.

The gloves are off...

Sony began 1995 in good form, with *Ridge Racer* and *Toshinden* doing well in Japan and PlayStation sales up to 300,000. Sega, however, boasting *Virtua Fighter* and little else, managed to get the Saturn into 500,000 homes. But by Spring, the balance of power had shifted. The Saturn conversion of *Daytona USA* was receiving mediocre reviews, and thirdparty developers were finding it hard to get to grips with the machine, while Sony revealed a stunning Namco conversion of *Tekken*.

As a result, Sega decided to bring forward its US Saturn launch from September to May. Naturally, the units shifted like hot cakes, but there was little software and many developers were angry that they had been left out of the launch frenzy. Again Sony had the upper hand, revealing crowd-pleasers like *Wipeout* and *Destruction Derby*.



1995 witnessed an upturn in the quality of 32bit software, symbolised by the arrival of *Tekken* (left) on the PlayStation and *Sega Rally* on the Saturn. The latter is perhaps yet to be surpassed as a racing game

Four years in the life of...

Phil Harrison SCEA



Edge: What were you doing in August 1993?

Phil Harrison: I was working for Sony in London, only a few weeks before joining a secret project which was to become PlayStation. **Edge** has chronicled the development and rise of PlayStation ever since.

Edge: What's the biggest change you've noticed in the industry over the last four years?

PH: When **Edge** started, the industry was in a slump. Over the past four years, we've seen it become a mainstream entertainment business. Games are cool again. The other significant change is the rise of the original hit, proving that you don't need to have a licence.

Edge: What has been your best experience in the industry over the last four years?

PH: 10am, September 29, 1995 HMV, Oxford Street, watching people purchase PlayStations on the UK launch day.

Edge: And the worst?

PH: Being taken off the free **Edge** subscription list after I moved to California!

Edge: What do you expect to see in **Edge** issue 100?

PH: Something that makes us all go, 'Wow! How on Earth did they do that?'



Issue 16

Perhaps wary of the 3DO's fumbled launch, Sony called a huge press conference in Tokyo to show off its 32bit machine to an already convinced gaming press. Sega, meanwhile, announced a worldwide Christmas launch for its 32bit stopgap, the 32X, and 3DO kindly informed Sanyo, Panasonic and co that they faced losses of over $200 million over the next 15 months. Trip Hawkins was instantly struck off several thousand Christmas-card lists.



Issue 17

E17 opened with the most important news for two years: the Japanese launches of the PlayStation and Saturn. Although both went well, Sega's machine took the early lead, selling many more units on the strength of its excellent *Virtua Fighter* conversion. Struggling to get noticed in this maelstrom was Nintendo, whose curious Virtual Boy was unveiled at November's Shoshinkai show. The tension in the air was almost palpable...

Issue 20

More revelations about M2's technical attributes graced E20's opening news spread, but this was closely followed by similarly impressive news about the Ultra 64, with both machines due for a late-'95 launch. In the arcades, Sega retained its domination of the high-end market, showing off a complete *Sega Rally* at the AOU show in Tokyo. Namco wasn't far behind, though – its clever *Alpine Racer* marked the beginning of a new fad for elaborate cabinets.

Four years in the life of...

Scott Steinberg Crystal Dynamics



Edge: What were you doing in August 1993?
Scott Steinberg: I was a rookie at Crystal Dynamics. We were a very young startup company with only about 30 people, working around the clock getting ready for the 3DO launch at Christmas – our title, *Crash 'n' Burn*, was the pack-in product. Oh, and I was about to get married.
Edge: What's the biggest change you've noticed in the industry over the last four years?
SS: The naivety of the industry. Poorly run companies still operating blindly, bleeding money all the while.
Edge: What has been your best experience in the industry over the last four years?
SS: The realisation that the PlayStation was a worldwide product and the industry would indeed evolve from 16bit.
Edge: And the worst?
SS: Seeing a major company like Sega stumble.
Edge: What do you expect to see in **Edge** 100?
SS: Big Christmas review issue of 'Holodeck' software. An exclusive interview with the alien that introduced Earthlings to 'direct-to-cortex' gaming. Preview of a new entertainment center on the Moon.

Sega jumped the gun once more in July, launching the Saturn in Europe two months early. Again, the machine duly sold out, even if its arrival was marred by a terrible PAL conversion of *Daytona*, with extraordinarily large borders. Sony responded with immensely successful US and European PlayStation rollouts.

Unfortunately for Sega, the PlayStation was going from strength to strength. Although Sega was far from beaten – *Virtua Fighter Remix*, *Virtua Cop* and *Panzer Dragoon* would all turn heads throughout the year – Sony was beginning to creep ahead. 1996 would call for something special to get the arcade veteran back in the race.

Born slippy

In 1994, Nintendo confidently announced that it would release a powerful new console based on its Project Reality technology by the end of 1995.

But suspicions that the launch would slip were first aroused when the Dream Team of developers was announced but no hardware specs were allowed to slip out. A few weeks later, a developer unable to maintain the silence any longer told the world that no one had official Ultra 64 (the project's moniker at the time) development kits; they all had emulation software running on Onyx workstations. This was around eight months before the supposed launch. Something was amiss.

Nintendo didn't seem to think so, though. In Spring, the company announced a US and Japanese launch date of November 21, even though NCL software had not been revealed and thirdparties had only just managed too get their hands on real dev machines. Finally, *The Wall Street Journal*, of all things, announced that the launch had indeed slipped by six months – 'to give software developers additional time to maximise the power of the system,' explained NOA CEO **Howard Lincoln**, who a few months earlier had assured **Edge** that the machine would be out on time. Later, a Japanese newspaper, *Nippon Kezei*, speculated that the Japanese date would actually be spring '96, which would put a US launch at around September and a European rollout in 1997. Suddenly, the 32bit formats had lots of free time to establish themselves.

Nintendo did at least show a finished machine in May and promised that there would be ten playable demos and 100 machines at the Shoshinkai show in November. When the long-awaited event arrived, however, these playable demos were withdrawn, leaving a lonely but brilliant *Super Mario 64* to hold the fort. At least a final Japanese launch date was revealed: April 21, 1996.

Incredibly, despite the delays and obsessive secrecy, Nintendo managed to keep the videogames world entranced. It also assembled a fine collection of thirdparty developers. The scene was set for a monumental launch.





There is little doubt that 1996 belonged to Sony and Sega. Their respective consoles revived an industry growing ever more stagnant and brought the 8bit generation back to videogames once and for all

M2, where are you?

Throughout '94, Trip Hawkins and co evangelised 3DO's 64bit sequel, M2. The specs looked impressive, the demos looked passable, and, perhaps most importantly, the console was intended to be backwardly compatible with the current 3DO. Then, late in the year, the technology was sold for $100m to Matsushita, which almost certainly intended to abandon plans for 3DO compatibility. This was the final slap in the face for 3DO purchasers, who had been told that they were buying the VHS of videogaming. Imagine their surprise when they found out it was actually more akin to a four-track cartridge player.

Key games of 1995

Toshinden (PlayStation)
Descent (PC)
Panzer Dragoon (Saturn)
Tekken (PlayStation)
Daytona (Saturn)
Wipeout (PlayStation)
Command & Conquer (PC)
Yoshi's Island (SNES)
Virtua Fighter 2 (Saturn)
Sega Rally (Saturn)

▶

Issue 23

May's E3 event in Los Angeles was more notable for what went on before it than anything that actually happened during it. As revealed in **E**23, Sega chose May 10 to launch the Saturn in the US, and Trip Hawkins decided on the same day to show off the M2 hardware in a hotel half a mile away from the show. However, was on hand to wax lyrical about the U64's revolutionary controller, but spoiled the effect by also showing off the Virtual Boy.



Issue 28

3DO's struggle to remain buoyant became blatantly obvious when **E**28 reported on the company's decision to sell M2 to electronics giant Matsushita for $100m. Nintendo was also having a tough time with its own 64bit technology – software delays forced the company to delay its N64 launch once again. On the bright side, Sega's Saturn was looking healthy, boasting a fine conversion of *Virtua Fighter 2* to attract gamers away from Sony's machine.



Issue 29

The videogames war raging between Sony and Sega reached a head in this month's issue, with brilliant conversions of *Sega Rally* and *Virtua Cop* going up against a fine *Ridge Racer Revolution*. The hottest news, however, concerned Nintendo's Shoshinkai show, where concrete details of the N64 were revealed, along with an astounding demo of *Super Mario 64*. After almost two years in the wilderness, Nintendo was back in business.

Did I really say that?

'I've seen the demo of *Super Mario 64* but I think that it's been built up too much. It basically looks like a well-developed PlayStation game. It looks nice, but I don't know about the gameplay...'

***Richard Darling** of Codemasters, on one of the best videogames of all time (**E**35)*

'They're coming in last and the public is going to see them as the third next-generation platform in every sense... I think the Nintendo 64 will be sunk before it gets out of the harbour as far as Europe is concerned.'

***Tim Christian**, European MD of Microprose, displaying why a 64bit conversion of Civilization 2 is highly unlikely (**E**36)*

'An interactive music adventure which explores, in a playful way, the eternal riddle of the relationship between man, woman and nature.'

***Peter Gabriel** makes his CD-ROM title, Eve, sound as enticing as the Ebola virus (**E**37)*

1 9 9 6

1996 was perhaps the healthiest 12 months for the videogames industry since the golden days of the SNES and Mega Drive. The Saturn and PlayStation were selling well – especially during the first half of the year, when they more or less had the console industry to themselves – and the N64's brilliance was gradually becoming obvious. But it was also a year which saw the PC develop in two areas: 3D graphics acceleration and online gaming.

Its me! Mario!

Before the world actually got to play *Super Mario 64*, the N64 was mired in controversy. There were the multiple launch delays. There was the lack of software support, with just three titles confirmed for the machine's première – one of which was a Japanese chess title. And there was the cartridge format itself, short of RAM space and unpopular with developers. Of course, there was the promise of the Bulky Drive, a 64Mb storage device designed to slot beneath the N64, but many regarded this as Nintendo's 32X – a desperate attempt to keep up with the times.

But all these quibbles faded away when gamers discovered *Super Mario 64*. Nintendo had promised one of the best games ever, and it was right. Unspeakably beautiful locations, cartoon-like animation, hours of gameplay – this was not so much a game as a defining moment in videogames history. In the '70s there was *Pong*, in the '80s *Pac-Man*. The '90s have *Mario 64*. End of story.

Look back in languor

Amazingly, considering that gamers now had access to the likes of *Mario 64*, *Quake* and *Resident Evil*, the retro gaming fad which had been simmering on the margins for a while suddenly exploded into the mainstream. It was Namco that really kicked off the trend, releasing the first of its five *Museum* discs in '95 and reacquainting modern gamers with the likes of *Galaga*, *Pole Position* and *Rally X*. Later came the *Gradius Deluxe* pack from Konami, *Irem Arcade Classics*, *Williams Arcade's Greatest Hits*, *Sega Ages* and a host of other collections of ancient games ported over to the PlayStation and Saturn. Meanwhile, C64 and Spectrum emulators were cropping up all over the Internet, promising true 8bit performance on a Pentium (perhaps not what Intel had in mind when it designed the powerful chipset). Even the British Film Institute began building a library of classic games.

'Why is this happening?' was the question resounding around the industry. One possible answer was that people yearned to return to a time when gameplay, not realtime lighting or bilinear filtered textures, was the central concern of developers. It could also have been pure nostalgia – the same nostalgia that makes grown men buy

Four years in the life of...

Ian Stewart Gremlin



Edge: What were you doing in August 1993?
Ian Stewart: Apart from waiting for my first free issue of **Edge** (I'm still waiting) so I could witness the birth of a milestone in computer-games journalism, I do believe I was busy preparing for ECTS or holidaying in some exotic location.
Edge: What's the biggest change you've noticed in the industry over the last four years?
IS: The speed at which technology is moving, letting us create products that are more real, more visually exciting, more audibly stimulating.
Edge: What has been your best experience in the industry over the last four years?
IS: Finally seeing our industry being taken seriously, and the enjoyment in building a company that is still successful.
Edge: And the worst?
IS: Coming up against *Red Alert* and *Tomb Raider* last Christmas with *Realms of the Haunting*, which is our best-ever product.
Edge: What do you expect to see in **Edge** 100?
IS: I would like to see a review of *Actua Soccer 6* stating that no other product has come near the quality of *Actua Soccer* – 10/10. Happy 50th, **Edge**.





Super Mario 64 and Quake were revolutionary and inspirational in very different ways. The former brought a sense of innocence and fun back into videogames. The latter let players blow opponent's limbs off



Issue 30

M2 news took the limelight again this month, with rumours that Sega was planning to become an M2 hardware licensee. More believable, however, were reports from the US that Atari was sacking staff left, right and centre in an attempt to quietly extricate itself from the videogame business. Sandwiched between these stories were details of a new graphics accelerator for the PC – Videologic was about to start the 3D revolution on the PC.

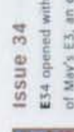


Issue 31

Sega's official introduction of the incredible Model 3 board at February's AOU show provided a compelling lead news story, as did the proof of its abilities, AM2's *Virtua Fighter 3*. At the same event, Namco was in playful mood, revealing *Alpine Surfer* and *Prop Cycle* to a new class of players who preferred rides to games. Later, more N64 delays were revealed, as were details of the PowerVR chipset. A very slow *F1GP2* showed just how much the PC needed acceleration.



Issue 34



E34 opened with coverage of May's E3, an event which revolved almost exclusively around the N64. But it was the gameplay on offer in NCL's *Super Mario 64*, not the underlying technology, which captured the imagination of the gaming press. This was perhaps the most heartening display of videogame craftsmanship for a number of years. Fine 32bit platformers *Crash Bandicoot* and *NiGHTS* looked somehow impoverished by comparison.

Four years in the life of...

Shigeru Miyamoto Nintendo



Edge: What were you doing in August 1993?

Shigeru Miyamoto: We had just completed the original Super Famicom version of *Star Fox* and were studying more about 3D technology, which eventually resulted in the current *Star Fox 64*.

Edge: What's the biggest change you've noticed in the industry over the last four years?

SM: I think that something that can be called a 'history' has been created in this industry, which had no real history before. For example, when we ask ourselves if any of the works of the past four years are still worthy of evaluation now, we can now say yes, although we could not say so before then. This, I feel, is the biggest change in this industry.

Edge: What has been your best experience in the industry over the last four years?

SM: I've been continuously enjoying myself in this industry.

Edge: And the worst?

SM: I've been too busy!

Edge: What do you expect to see in **Edge** 100?

SM: I can't think that far ahead! But congratulations on getting to issue 50, and keep publishing your quality magazine.

Scalextric sets and plastic models of Spitfires...

This is a Quakeworld

During 1996, *Quake* took on a degree of significance which stretched way beyond its status as a videogame. Even though it was an impressive product in its own right, with some brilliantly constructed locations, gory new weapons (the nail gun will never be usurped as *the* firstperson shoot 'em up weapon) and monsters which seemed to have leaked directly from the subconscious of Clive Barker, it was the multiplayer experience that really made this game a magnum opus for id. When the Deathmatch option surfaced as a demo on the Internet, its grip on the gaming population really began to take hold. Offices ground to a halt for hours as workers feverishly blasted each other to pieces with grenade launchers, and the Internet looked like grinding to a halt too as id announced its idea for Quakeworld, a worldwide linkup of servers running the game.

People lost days of their lives to eightplayer frag sessions, hundreds of fan websites were set up, and there was barely a development studio in the world which didn't have the game on its network, ready to kick off at lunchtime every day. If *Mario 64* was the god of gaming for 1996, *Quake* was the devil, sucking people into a zombie-like existences of endless slaughter. Roll on *Quake 2*...

Cabinets of curiosity

Although elaborate coin-op cabinets have always been a popular way of getting punters to part with their money, 1996 saw more than ever flood into arcades and theme parks. Namco started in '95 with *Air Combat 22* (player sits in cockpit) and *Alpine Racer* (player stands on skis), followed in '96 with *Prop Cycle* (player sits on flying cycle), *Alpine Surfer* (snowboard) and *Alpine Racer 2* (skis again). Konami soon joined in with *Jet Surfer* (player crouches awkwardly on jet bike) and *Hang Pilot* (player awkwardly grabs at metal bar), and Sega delivered *Wave Runner* (player crouches awkwardly or sits on jetski, depending on how he feels).

Although these novelty cabinets looked impressive and offered an immersive experience, they raised questions about whether arcades were turning into glorified fun fairs, offering rides rather than games. Given the continued interest in Namco's System 11 and Sega's Model 2 games, this now looks unlikely.





Although the 32bit consoles were still performing well, by '96 many gamers were already looking toward the promises of 64bit technology. In July the N64 lived up to those promises. M2 never got the chance

To be 3D

By 1996, there were really only two chipsets in the battle to dominate the PC 3D accelerator market: PowerVR and 3Dfx. The former offered proprietary hidden surface removal, 800x600 visuals and 4Mb of SDRAM which could be used solely for texture manipulation. The latter boasted bilinear filtering, DOS compatibility and ease of use for developers – which was probably what really gave it the advantage. However, most game publishers decided not to try and exploit each card, but to back Direct3D instead, which is supported by both chipsets. Thanks again, Bill...

And finally...

Sony hands programming back to the bedroom amateurs with its Net Yaroze. Sega touts Model 3 and *Virtua Fighter 3* to a flabbergasted videogames world. Konami takes on Sega and Namco with a marvellous new high-end arcade board. Atari finally disappears down the pan. M2 is completed and ready for launch. ▶

Key games of 1996

Street Fighter Alpha (PlayStation)
Civilization 2 (PC)
Resident Evil (PlayStation)
Tekken 2 (PlayStation)
Super Mario 64 (N64)
PilotWings 64 (N64)
NiGHTS (Saturn)
F1 (PlayStation)
Quake (PC)
Tomb Raider (PlayStation)



Issue 35

After the previous month's unabashed endorsement of *Mario 64* and *PilotWings 64*, the hugely positive reviews in **E**35 were inevitable. As for news, the N64's launch in Japan led the way, followed by Sega's decision to reveal near arcade-perfect Saturn versions of *Fighting Vipers* and *Virtua Cop 2* at the Tokyo Toy Show. Later, rumours indicated that M2 was set to receive not one but two PowerPC 602 chips. Not that it makes much difference now, of course.



Issue 37

Edge received detailed and enticing information about the supposedly imminent M2 this month, and reported on an N64 price drop in the US. On the arcade side, Sega revealed advanced versions of *VF3* and *Touring Car* to coin-op distributors. The former gained a rapturous welcome. The much-maligned 3DO Company, meanwhile, pulled in 17,000 beta testers for its online game, *Meridian 59* – the biggest number ever attracted to a 3DO product. Allegedly.



Issue 40

Yet more information about M2 and its controversial graphics engine in **E**40, which cruelly whetted gamers' appetites with news that the console would be able to display 500,000 textured polys per second. Also interesting was the Japanese launch of Yaroze – a programmable PlayStation aimed at the bedroom coder – and the UK launch of PC 3D cards using the Voodoo and PowerVR chipsets. The days of 12 frames a second were over.

Did I really say that?

'I've not seen any N64 games that demonstrate capabilities beyond the PlayStation. Does being able to display blurry, pinky, smoothed polygons demonstrate 64bit technology?'

***Juan Montes**, demonstrating that a trip to the opticians may be in order ('State of Play' supplement)*

'Being approached by 3DO was an offer we are very proud of. It was great to be first with such stunning new hardware [M2].'

*Perceptions' **Andrew Whittaker**, who maybe feels less proud now (**E**43)*

'People who play violent videogames probably will have a tendency to be more violent.'

*US senator **Joseph Lieberman**, making friends with the games industry*

'We had a long debate about whether you aim or just swing and fire. I said, "You're a fucking ranger, man. You're super-lethal. You hit what you aim at."'

***Mark Long**, co-founder of Zombie, perhaps getting slightly over-excited about his game, Spec Ops*

1997

So far, 1997, like '96, has been a year of stable growth for the industry. There are now four excellent gaming platforms – PlayStation, PC, Saturn and N64 – each of which with its own unique attributes and plenty of triple-A titles in the pipeline. Apart from the M2 debacle, the emphasis in 1997 has been very much on software rather than hardware, allowing developers to truly push back the boundaries of the two-year-old 32bit consoles. Which leaves **Edge** wondering what gamers will be seeing on the N64 in 12 months' time...

Obsolescent angst

It was in January that Intel officially launched its Pentium processor with MMX technology – the first in what looks like becoming a major series of overhauls for the PC. The chip boasts an expanded cache and 57 new instructions developed specifically to enhance graphics, audio and video performance. Although developers have been ambivalent about the chip, others have used the technology to great effect, including Epic Megagames in its firstperson shooter, *Unreal*, and UBI Soft in the sci-fi racing game, *Pod*.

However, in April, news that Intel was to launch its Pentium II processor in autumn meant that the Pentium 200MMX faced obsolescence before it had even got a foot in the door. PII, which appears in a new cartridge format and will require PC manufacturers to alter the design of their motherboards, is due to première in 233MHz, 266MHz and 300MHz versions. Of most interest to gamers, however, was the news that a later version of the machine would come equipped with AGP, a new fast bus protocol designed to speed up the information passed between the graphics card and the processor itself. 1997, then, may well end with an extraordinarily fast and powerful 233MHz PII machine as the base PC. Start saving those pennies now...

Sega confuses the world (2)

For Sega-watchers, 1997 was another year of confusion and perplexity, as two major deals involving the company fell apart. The first was a proposed merger with Japanese toy giant Bandai – responsible, of course, for that curse of Saturday morning TV, 'The Power Rangers'. The arrangement, which was due to come into effect this October, was officially dissolved because Bandai middle-managers felt that their company's way of doing things would be compromised. However, others reckoned the success of Bandai's Tamagotchi meant that the toy firm no longer needed Sega.

Then, in July, came the news that Sega had abandoned an agreement with 3Dfx to produce 3D graphics hardware for Saturn 2. This had everyone even more puzzled, including 3Dfx – the firm





This year, *Dungeon Keeper* showed that complex, intelligent gameplay still has a place in the videogames world, while Rare's *GoldenEye* proved that brilliant thirdparty N64 titles are still very real quantities

Four years in the life of...

Jeremy Smith Core Design



Edge: What were you doing in August 1993?
Jeremy Smith: Standing by the letterbox waiting for **Edge** to arrive... In between, we were putting the finishing touches to *Thunderhawk* on the Mega CD.
Edge: What's the biggest change you've noticed in the industry over the last four years?
JS: Four years ago, we thought a 486 dual-speed PC CD-ROM was state of the art and Mega CD was a major breakthrough. The impact of a CD in that time has been incredible. Also, the quality of games is getting better.
Edge: What has been your best experience in the industry over the last four years?
JS: Surviving being sold twice, even though we were working on five 32X products, plus being involved in the phenomenal success of *Tomb Raider*.
Edge: And the worst?
JS: Working on five 32X titles, and having to replace all those state-of-the-art 486s.
Edge: What do you expect to see in **Edge** 100?
JS: Lara Croft four years older, being outputted at over one million polygons, being played on some pretty amazing hardware. Plus, having to change all my PCs again.



Issue 41

Nintendo's eighth Shoshinkai Exhibition was short on new games but did boast a near-complete 64DD peripheral. In a glass box. With no software. Playable demos of *Mario Kart* and *Star Fox 64* stopped most attendees from feeling too dejected. More exciting, perhaps, were rumours about sequels to the PlayStation and Saturn, as well as a brief glimpse of *Biohazard 2*. There was also news of a possible *Tomb Raider* cartoon. The cult of Croft began here.



Issue 43

E43 began with news of a merger between Sega and Bandai – precipitated, it was suggested, by the poor financial situations of both companies. In the UK, Brit gamers getting ready for the launch of the N64 were no doubt shocked to learn that only 20,000 units were due to enter the country on March 1, and most of them had been pre-booked. On a more upbeat note, Microsoft announced its arcade plans, and Philips quit the videogames industry.



Issue 44

Intel's introduction of its Pentium II technology to a receptive crowd at CeBit hit the news this month, as did more embryonic rumours about Saturn 2. Elsewhere, the '97 AOU show provided plenty of intrigue, most of it revolving around Konami and an excellent new arcade board named Cobra. Back in the west, the N64 finally arrived in Britain at £249 and **Edge** got drunk at the launch party along with several 'stars' of 'EastEnders'. And Bob Monkhouse.

Four years in the life of...

Tetsuya Mizuguchi Sega AM Annex



Edge: What were you doing in August 1993?
Tetsuya Mizuguchi: I was in California to watch our first CGI film, 'Megalopolis'. After that, I drove round Death Valley and Yosemite National Park, where I got the initial inspiration for my first game, *Sega Rally*.
Edge: What's the biggest change you've noticed in the industry over the last four years?
TM: Car navigation systems. You can find your position anywhere on the earth in your car in realtime. They'll also tell you about traffic jams, accidents, etc, in realtime and indicate the best way to avoid them.
Edge: What has been your best experience in the industry over the last four years?
TM: Floating capsules, or isolation tanks. No lights, no sound. You just lie in the tank and float. Five minutes later, you have no sensory input whatsoever. Just your brain – which feels like it is existing in nothing. It helps me to decide what to do with my life.
Edge: And the worst?
TM: Virtual reality.
Edge: What do you expect to see in **Edge** 100?
TM: An **Edge** world creators conference in Goa!

had thought its agreement with Sega was a done deal.

Whatever the case, exciting news of Saturn 2 had better turn up soon – there are definite signs that the original is losing its hard-fought battle with the PlayStation. In Japan the machine may still be doing well, but in the West it is being dramatically outsold by Sony's console. Now few developers are even considering producing games for the Sega platform, and with uncertainty and confusion surrounding the sequel, it could be that Sega's position in the home market is floundering once again. There are, however, still three months left for Sega to surprise the world...

Gates enters the arcade

1997 was the year that Microsoft announced plans to dominate another area of computer technology. Together with Intel, the company revealed its Open Arcade Architecture – a PC arcade machine based on a PII processor and running an unmodified version of *Windows 95*. Together, the two PC leviathans spent the early part of the year courting softcos throughout the world, tempting them to develop for the platform with tales of untold new profit potential. Consequently, by July around 50 companies had signed up to join the OAA forum, including software houses, 3D graphics-chip manufacturers and coin-op cabinet makers. But can PC developers create arcade games capable of competing with the output of Sega, Konami, Capcom et al? The jury is still out.

Nevertheless, this is a truly extraordinary and exciting development. Sixteen linked PCs running *Quake* Deathmatch on 40-inch screens may be what it takes to attract pasty-faced PC gamers out of their homes and into the treacherous dens of iniquity that are the arcades.





The battle for domination of the PC 3D accelerator market was well underway at the start of the year. 3Dfx's Voodoo chipset (above left) has made a convincing start, but PowerVR's time may still come

Secret technology

But big companies like Intel and Microsoft are not the only industry players making technological leaps. Andrew Spencer, for example, has been using ellipsoids in his games for years, and *Ecstatica 2* showed just how visually impressive the technique could be. Meanwhile, in March, Norwegian developer Innerloop revealed its IFS system – a complex algorithm-intensive engine designed to make objects more and more detailed as the player approaches, and to make landscapes flow seamlessly. Shiny, too, is working with some amazing tessellation techniques in *Messiah* – Dave Perry even claims that they have models of 180,000 polygons scaling in realtime.

The general consensus seems to be that the key to 3D in the future will be storing objects as textures and parameters in mathematical form rather than as archaic polygon models. John Carmack is already planning to implement brand-new techniques like these as soon as *Quake 2* is out of the way. So, will current wonders like *Super Mario 64* and *Quake* soon look clunky and slow? Of course. **Edge** can guarantee it.

And finally...

Turok, *J-League* and *GoldenEye* put paid to the myth that there will be no brilliant thirdparty N64 games. Videologic introduces PCX2 – the next wave of 3D acceleration or a hasty rethink after the company accidentally forgot to put bi-linear filtering in its first product? M2 is finally scrapped. No one is surprised. Jon Romero leaves id Software and sets up Ion Storm. Konami introduces its Cobra board and a new racing game so realistic it makes *Scud Race* look like *Pole Position*. The old arcade master is back...

Key games of 1997

- *X-Wing vs Tie Fighter* (PC)
- *Moto Racer* (PC)
- *Blast Corps* (N64)
- *GoldenEye* (N64)
- *ISS Pro/64* (PlayStation and N64)
- *Dungeon Keeper* (PC)
- *Star Fox 64* (N64)
- *Time Crisis* (PlayStation)
- *Turok: Dinosaur Hunter* (N64)
- *X-COM: Apocalypse* (PC)



Issue 46
E46 saw the controversy surrounding Saturn 2 supposedly coming to an end as 3Dfx's involvement in the project was discovered. Also, PC giant Intel jumped on Microsoft's arcade bandwagon, presenting its Open Arcade Architecture to a ready and willing PC development community. The coin-op industry would never be the same again. As for software, *ISS Pro*, *Star Fox 64* and Peter Molyneux's long overdue *Dungeon Keeper* all attracted praise.



Issue 47
After a whole year of leaked tech specs and promising software demos, **E**47 revealed the near-inevitable news that Matsushita had finally ditched M2, without ever presenting a mock-up of the machine. In a similarly downbeat vein, **Edge** also reported on the breakdown of the Sega/Bandai merger, reportedly brought about by the latter's middle-managers getting skittish. At least E3 was set to go ahead, even if it was to be in decidedly unglamorous Atlanta.

Issue 49
The opening spread of the 49th **Edge** dealt with Sega's dismissal of 3Dfx as a part of the Saturn 2 project. No one was more surprised by this than 3Dfx – the company thought its deal was written in stone until Sega phoned to reveal otherwise. Meanwhile, *Star Fox 64* became one of the fastest-selling videogames in history, Sony released its analogue pad, and Philips somehow managed to sneak back into the industry with a VR headset. Called 'Scuba'.

Ganbare **Goemon**







With the subtitle 'Dance of the Neo Momoyama Shogunate', the N64 version of *Goemon* nails its distinctly odd colours to the mast right from the offset. Unfortunately it was just this sort of 'weirdness' that caused the western translation of the first SNES game to fail in western markets



This giant UFO catcher (used to grab Ebisumaru's camera power-up) is typical of *Goemon*'s inventiveness

With so many previously Nintendo-only titles packing their bags and heading for the FMV-friendly lands of the PlayStation, it's somewhat comforting (not least to Nintendo itself, presumably) to see an important developer like Konami remaining firmly on board. The firm has not only dedicated an immense amount of time and effort to continuing its *Goemon* series on the N64, but it is so proud of this new 64bit 'mystical ninja' that it has dropped its numerical suffix, severing the ties with its Super Famicom predecessors and heralding a new 3D era for the spiky-haired thief and his bizarre entourage.

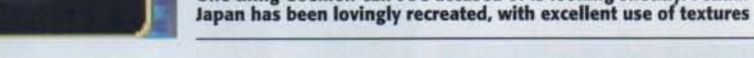
Even if the game, predictably, now boasts a free-roaming *Super Mario 64*-style world, the traditional *Goemon* format remains. This is an action-RPG featuring story-advancing towns and villages where the player is safe from harm and free to stock up on health and armour, plus arcade levels replete with monsters, traps and end-of-level bosses. Of course, this being *Goemon*, the whole affair is permeated with a sense of the absurd that only the creators of *Parodius* could engineer. Ishikawa Goemon may have been an actual person – he had legendary status thrust upon him in the 1500s when he composed a poem before being executed in a pot of boiling oil – but it's doubtful that he was accompanied on his adventures by demon kites, half-naked, potbellied executioners, and a giant mobile suit version of himself.

Initially, though, it seems that Konami's programmers have bitten off more than they can chew in trying to transform such a rich world into 3D. Although Edo-period Japan has been lovingly recreated, with a fine eye for historical detail and some tremendous texture work on





The N64's tell-tale fogging ability is used to great effect in *Goemon* (left) and isn't simply employed to cover up scenery pop-up which, fortunately, is minimal. Like *Star Fox 64*, the cut scenes use realtime graphics

One thing *Goemon* can't be accused of is looking shoddy. Feudal Japan has been lovingly recreated, with excellent use of textures



Although it tries hard, the game camera can hinder combat to the point where it becomes hit and miss

show, frame rates vary wildly and graphical glitches abound. If a village inhabitant is unfortunate enough to stray too near to the camera, for example, he's likely to disintegrate into a mess of polygons, and what seem like solid walls often degrade to reveal the landscape beyond.

The camera, too, can cause its fair share of problems. In *Mario*, adjusting the camera is fundamental to negotiating the landscape, but in *Goemon* it is given somewhat secondary status. At its default setting, it always tries to remain directly behind the player, but it takes so long to do so that it's often a case of stopping and waiting for the viewpoint to catch up so that it's possible to gauge the next jump. This can be more than a little bit frustrating as it's possible to be attacked from behind at any time by a roaming nasty that the player had no way of knowing was there. Although not an insurmountable problem, it certainly removes some of the sheen from what should be a triple-A product from a respected developer.

But if *Goemon* is a little rough around the edges compared to Nintendo's best, the scales are more than tipped in its favour by the imagination which has always typified the series. Like its predecessors, the design of *Goemon 64* exhibits flashes of sheer brilliance. At one point, for example, the player battles a giant spinning top on the back of a flying Chinese dragon. Another scene has a tiny, shrunken Ebisumaru (Goemon's decidedly stupid sidekick) frantically running around in a cupboard, collecting sweets and trying to avoid the gaze of a giant who, every so often, opens the door and scatters dynamite around if he spots the miniature intruder. Such gems maintain the urge to see what oddity is around the next corner.

Although the pop-meets-Kabuki soundtrack is unlikely to be appreciated by most Western gamers, it's more than mere padding. Goemon's celebrated poem is incorporated into the lyrics of the intro track, and the 'Goemon Impact' theme, a perfect tribute to 1970s giant-robot anime, is an ideal accompaniment to the self-parodying nature of the game.

Without an English translation, it's hard to recommend *Goemon* to anyone but die-hard import fans. It hasn't been designed with foreign players in mind, and its jokes, cultural references and Japanese text make it a trial-and-error affair – although far from impossible. But as the biggest thirdparty N64 game yet, it's an important release for the machine in Japan, and Konami should think hard before denying Western gamers its charms. **E**

Edge rating:

Eight out of ten



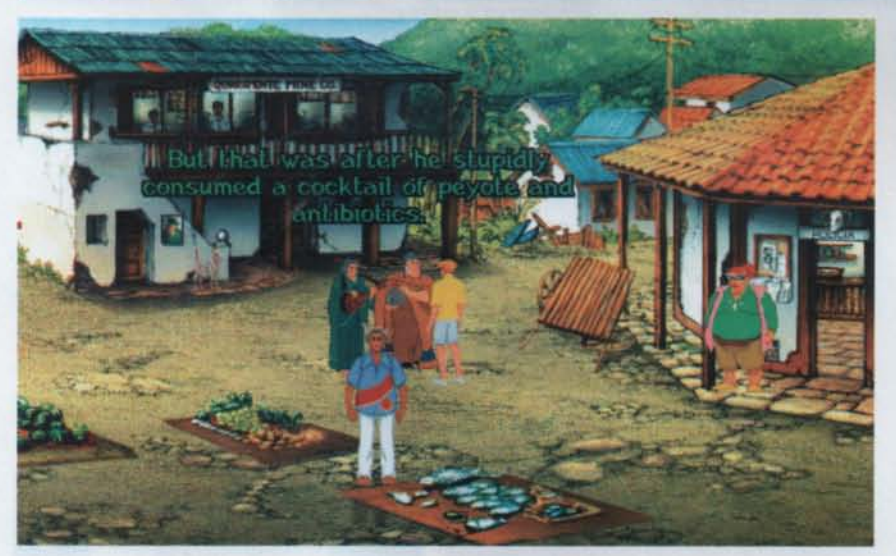

Subgames range from the relatively normal boxing-style combat of the Goemon Impact sections (left) to the totally bizarre. The latter elements will hamper the chances of a western release

EDGE			
	Format: **Nintendo 64**	Publisher: **Konami**	
	Developer: **In-house**	Price: **¥7,800 (£45)**	Release: **Out now (Japan)**

Broken Sword **II**







Several scenes in the game (above) make the most of an improved sprite engine that caters for far larger characters than was possible in the previous game. The FMV sequences (top left) are displayed in fullscreen SVGA and feature animation of a quality which can be compared to contemporary Disney movies. The sprite art (left) blends seamlessly with the backgrounds – no easy task with this style of cartoon presentation

The first *Broken Sword* game marked a major turnaround in the fortunes of UK-sourced graphic adventures, with York-based Revolution finally toppling LucasArts from its perch as genre leader. Glorious SVGA visuals signalled the dawn of real cartoon animation, while the script successfully juggled suspense with humour, player freedom with tight plotting. And a surprisingly literate plot based on the fashionable topic of the Knights Templar provided the spark for a yarn which blended European wit with the action of an Indiana Jones romp. The climate for this sequel is rather less welcoming. With high resolution now a standard, all sprite-based software is having a hard time competing with the polygonal delights of 3D gaming, especially now that LucasArts is back in the running with the forthcoming *Curse of Monkey Island*. The challenge for *Broken Sword II* (subtitled *The Smoking Mirror*), then, is not only to match the glory of the original, but also to contribute something new to the genre in the same way its predecessor did.

This is no easy task, but it's one that Revolution has just about pulled off. Granted, the improvements here are often subtle ones, but there's a satisfying sense that progress has been made in pretty much every aspect of the game – the user interface, the character animation, and the story itself.

George Stobbart is once again the hero of the hour, his American origins handily making the game more accessible to the US market. As the game opens, his relationship with the beloved Nico is in tatters. When she is rendered unconscious with a poisoned dart and abducted before George's eyes, while the kidnappers leave him tied to a chair in the company of a tarantula, he sets off on a long and winding path towards rescuing her and effecting a reunion.

This punchy first act sets the tone for a pacier, more fanciful adventure than the original, with the initial Paris locations soon giving way to a whole section in Central America, where the mystical central plot, concerning the reappearance of an evil Mayan deity, is eventually revealed. Stobbart remains amusingly ineffectual, and the game continues the first's conversation-driven format, but this time there are a number of movie-like set pieces,



Fans of the first game will no doubt recognise this particular brain-addled character (top), who's never sure if he's a bumbling tourist or a CIA agent. Many scenes, such as this one (right), employ several layers of parallax scrolling to emphasise the 3D feel



with that Indiana Jones element naturally coming to the fore in these more exotic locations. It makes for a dynamic experience, although the stunts and situations do give Stobbart one too many opportunities for smart quips, making him perhaps just a little less likeable this time round.

But while the action elements have been scaled up, so too has the wordiness, resulting in some scenes where the player has little to do but cycle through possible questions in search of a scrap of a clue, or worse, suffer a couple of pure sit-and-listen passages. Yet the extra dialogue has also given Revolution the chance to really go to town on characterisation and comedy. This is a far funnier adventure than the last, with some excellent exchanges inducing genuine belly laughs. There's even a self-knowing air to some gags – at one point, Stobbart asks a character whether he knows of Karzac, the evil mastermind of the game. 'Sounds like a comic-book villain to me, son,' comes the response.

The graphics benefit from a similar increase in detail. The superior backdrops and character sprites are applied with software filtering as they scale toward the player's viewpoint. This subtle blurring, plus translucency and shadow effects, provide a greater sense of cohesion between sprites and backgrounds, which is enhanced by the many occasions when objects, characters and background detail interact seamlessly.

The control system, on the other hand, has been pared down, with fewer icons to get to grips with. Instead, two different cursor types provide access to all object manipulation, movement, and conversation, with the game engine taking context-sensitivity just about as far as it can go. Such an approach also reduces the range of possibilities when problems reduce players to trying every possible combination of actions and objects – something that can consume hours in less tightly designed graphic adventures. However, with the puzzle designs proving mostly logical or information-based, such floundering moments are thankfully rare.

The developer has even improved the audio side of the game, retaining composer Barrington Pheloung's services for the orchestral score, but applying an even greater degree of context sensitivity, with transitions reflecting the action. A discussion about easy listening prompts the soundtrack to follow suit, for example, while at one point the mention of a Mayan artefact provides the cue for a surge of pipe music. This is all complemented by plenty of ambient effects and faultless vocal acting, and the result is so subtle that it can easily go unnoticed.

Those expecting Revolution to return with a whole new way of presenting the graphic adventure will no doubt grumble at the format used in *Broken Sword II*. But the fact remains that this kind of game engine has survived for so long simply because it is so effective, and by further honing every element of an already classy game engine, Revolution has done more than enough to retain a contemporary sheen.

BROKEN SWORD II SUCCEEDS IN BEING BOTH **COMIC AND THRILLING**, PRESENTED WITH **A VISUAL STYLE** THAT REALLY DOES APPROACH THE STANDARDS OF A **GENUINE ANIMATED MOVIE**

But it's the script itself really under scrutiny here, of course. As with the original *Broken Sword*, there are more than enough references to both mythology and historical fact to provide a solid foundation for a story that succeeds in being comic and thrilling, presented with a visual style that really does approach the standards of a genuine animated movie. The result is nothing less than a classic. Revolution is to be congratulated for creating a sequel that is much better than its predecessor, and for once again upping the stakes in a genre that has finally learned to use the technology available. E

Edge rating:

Nine out of ten



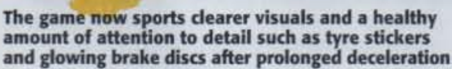


This particular section in the Central American chapter of the game (left) puts the player in the role of Stobbart's sidekick and love interest, Nico, as she attempts to fend off a general's amorous advances. Predictably, the game begins with a mystery (top), as Stobbart embarks on his quest to discern the whereabouts of Nico

EDGE			
	Format: **PC**	Publisher: **Virgin Interactive**	
	Developer: **Revolution**	Price: **£40**	Release: **Out now**

F1 '97




The game now sports clearer visuals and a healthy amount of attention to detail such as tyre stickers and glowing brake discs after prolonged deceleration





It's a sad indication of how money-mad the videogames industry has become when any title displaying a hint of success is followed by a sequel after a matter of months. Despite sporting an assortment of bugs, *Formula 1 '97's* predecessor was last year's best-selling PlayStation game – hence this hasty follow-up. Although the game offers enhanced racing action and several new additions, cynics would suggest that the improvements could have been included in the original had the developer been afforded more time on it.

The updated game sports this season's statistics – complete with all the drivers and teams currently involved in the World Championship – and 18 circuits, including a new track (the Australian Grand Prix now being held in Melbourne, not Adelaide). Most importantly, CPU drivers no longer stubbornly follow the racing line, and actually react to the player, moving over in order to avoid crashes and displaying a certain amount of AI in the process. When accidents do occur, they're now far more impressive, with cars leaving the ground and pieces of bodywork scattering all over the track.

The difference between the 'arcade' and 'sim' modes is now more pronounced, with the former mode wildly exaggerating powerslides and turning the whole experience into something more akin to a rally game. Real F1 aficionados are likely to opt for the Grand Prix mode instead, which offers an impressive amount of realism and also boasts new additions, such as a flag system, realtime telemetry readouts, and helmet tearoffs for when a driver's visor becomes covered in oil and dust.

Sadly, the splitscreen twoplayer mode is disappointing. Because the CPU struggles to draw any further than around 15 metres beyond the front wing of the cars, it only really works when the two players have an intimate knowledge of the circuit. Another major drawback is that it isn't possible to alter the car's aerodynamic and brake settings during the practice sessions, which means that players have to guess the settings before qualifying and racing.

Nevertheless, this version is currently as close to the real thing as PlayStation owners are going to get without having to borrow Schumacher's overalls for the day. Dedicated fans of the sport will no doubt rush out and buy it, but despite the undisputed improvements, it may well prove a less attractive proposition to many owners of the original, who could be left wondering whether the new features represent real value for money.

But then, of course, there's always the possibility of next year's version to tempt them.



Edge rating:

Eight out of ten





Dynamic weather and possible engine failure make the timing of pitstops crucial if races are to be won. The right tyre choice might also help (left)





The new cockpit view (above) is particularly impressive, offering the most realistic mode of racing

Format: **PlayStation**	Publisher: **Psygnosis**	
Developer: **Bizarre Creations**	Price: **£40**	Release: **Out now**

Croc







The 'inspiration' for *Croc* is clear. N64 owners will no doubt have seen something like this before (above)

The first of the true *Super Mario 64*-alikes has arrived in the form of a super-cute affair from one-time übercodeshop, Argonaut. After the likes of pseudo-3D platformers such as *Pandemonium*, it is time for other developers to prove what they can do in the wake of Nintendo's epoch-defining title.

Taking the role of Croc, players must progress through four islands of an area known as the Gobbo Archipelago. Each of the four is broken down into six levels, and each of those contains six small furry animals known as Gobbos. These six are further divided into sets of two. Collecting all six of the Gobbos in each of the three-level sets reveals a secret stage. These eight secret sections each contain a magical puzzle piece, and collecting all eight provides access to a mysterious fifth island.

Throughout the 3D levels, the player is encouraged to collect crystals. Hitting the magic 100 mark grants an extra life, while taking damage forces the entire collection to be dispersed over the floor, at which point there is a brief opportunity to regather them before they disappear. Hardened platform gamers will, of course, recognise elemens such as this immediately.

In visual terms this is one of the best PlayStation titles to date. Argonaut has created a series of colourful worlds within which Croc runs, jumps and swings with magnificent animation. The other characters are strong, too, displaying design skills usually associated with well-produced Japanese games. In fact, the presentation in general is handled with exceptional professionalism.

Sadly, extensive play reveals the game's weaknesses. Not only is controlling the green-skinned creature awkward, but the game camera often tends to present the action from peculiar angles rather than from behind the player, making it difficult to judge jumps and often leading to situations where enemies launch fatal attacks from offscreen positions, unbeknown to the player. Three camera settings are selectable, but the options prove much less flexible than those of *Mario 64*. Certainly, those who were quick to knock the camera system of Nintendo's game would be wise to make room in their stomachs for a rather large slice of humble pie.

There are many similarities between *Croc* and *SM64*, but PlayStation owners will find the comparisons unfavourable. *Croc* offers neither the depth nor the innovation of Nintendo's game, and the short, barren, and repetitive levels result in an experience that is not nearly as enjoyable as it could well have been.

Edge rating:

Six out of ten





Although normally positioned behind Croc, the camera sometimes selects awkward angles (above)



Underwater sections are atmospheric but, like the overground areas, can prove rather claustrophobic

Format: **PlayStation**	Publisher: **Fox Interactive**	
Developer: **Argonaut**	Price: **£45**	Release: **October**

GunBullet





Whatever location the player finds himself in, *GunBullet* always manages to offer humour and variety

When Namco announced its Guncon last year, many gamers felt that they could expect little support for the peripheral after the release of the initial compatible title, *Time Crisis*. After all, almost every console format in the past has boasted a gun-like accessory which has dramatically failed to make an impact due to a severe lack of decent compatible software. Indeed, the videogaming world must be packed with discarded lightguns whose potential remains unfulfilled. Of course, the problem lies partly with the gameplay limitations of the gun-game genre, but publishers are also wary of producing titles of use to only the relatively small userbase which has invested in such peripherals.

Whether history will repeat itself with the Guncon remains to be seen, but by releasing *GunBullet* so soon after *Time Crisis*, Namco is already doing more than previous publishers have managed. Naturally, as sole manufacturer of the Guncon, it stands to lose the most if the system fails and is therefore merely looking after its own interests by offering continued support, but it's a commendable move nonetheless.

GunBullet is a conversion of the laughs-packed arcade game (aka *Point Blank*), and apart from the coin slot nothing seems to have been lost in the translation. In fact, as with *Time Crisis*, this PlayStation version has exclusive features which greatly improve its long-term value.

The main game, however, remains true to its arcade ancestry. As Dr Dan or Dr Don, up to two players choose one of two difficulty settings and test their shooting skills over 16 levels. These levels, although essentially similar to each other (this is, after all, a shooting game), are perfect examples of imaginative Japanese design and as such present the player with a welcome amount of variety.

Shooting rows of bottles on a drinks cabinet, destroying meteors before they crash into a planet, splintering a falling leaf with a single bullet before it reaches the ground or trying to kill a fly as it buzzes annoyingly around the screen are just some of the many humour-filled tasks facing potential Dirty Harrys. Furthermore, because the levels are presented in a random order, every game offers a different succession of stages, and a strict time limit ensures much panic-induced trigger-pulling.

The console-exclusive mode offers a special arrangement of the arcade game, which includes levels not present in the original version. A training option allows players to select either an individual or a group of levels with which to hone their skills, while a survival stage allows the player to progress through the levels until he has run out of lives.

The Quest mode is perhaps the game's weakest aspect. It sees the two doctors travelling through GunBullet Island, meeting the locals and fighting off enemy attacks. All of the classic RPG elements, such as health and hit points, are here, together with the option to purchase better equipment with the money gathered from successful battles, but the change of pace proves too drastic for a game which thrives on constant action.

In contrast, the Partyplay option really allows *GunBullet* to come into its own. Here, up to four players take part in turn-based score or tournament battles, with two players playing against each other at any one time – or even eight players going head to head as two teams. This section stands as the perfect after-pub activity.

Ultimately, although it hardly pushes the boundaries of the PlayStation, *GunBullet* is an addictive, colourful and enjoyable title that fully exploits its own strengths as an accomplished multiplayer experience.





Whether it's saving stranded sailors from the clutches of vultures (left) or standard funfair-style stuff, continuous frantic action is assured

Edge rating:

Seven out of ten



A graveyard is even used as a setting for the action



Some stages rely on speed rather than pinpoint accuracy (top), while others demand a mixture of the two

Format: **PlayStation**	Publisher: **In-house**	
Developer: **Namco**	Price: **¥7,800 (£45)**	Release: **Out now (Japan)**

Ghost in the **Shell**



The *Ghost in the Shell* manga and anime delivered a complex plot revolving around computer crime, the Net, and cybernetic people. The videogame, however, is little more than an arcade-style blast

While the movie tie-in has rather had its day in the west, the animation industry in Japan still provides rich pickings for publishers seeking to give their game a much-needed promotional boost. Even so, given that *Ghost in the Shell* is so rich and complex in its anime and manga forms, it's disappointing that Sony has ignored almost everything that makes it so special.







The way the landscape twists and turns is well implemented, making this a game unlike any other – although at times a terribly disorientating one

What the game actually turns out to be is a reworking of the *Jumping Flash* engine – not surprising considering that developer Exact was also responsible for coding the two *Flash* adventures for Sony. The objective is simply to shoot or be shot as players scuttle their way around 12 rather short levels, each of which culminating with an obligatory boss. *Flash*'s cartoonesque world has been replaced with a rather grey and grim setting, and the comical Robbit has been superseded by Fuchikoma, an insect-like tank piloted by *Ghost*'s heroine, Motoko Kusanagi, accompanied by her special police squad.

Exact's gimmick here is not that it's possible to jump seemingly miles into the air, but that the tank can scale and cling to walls and ceilings. The screen always rotates so that it is in an upright position, which makes for an interesting twist when the obstacles are shipping containers and buildings on a dock. The game turns into little more than a *Descent* clone, however, when Fuchikoma is in an interior complex. The fact that the viewpoint slips into firstperson whenever the tank finds it can't back up any more can create havoc when trying to cope with a screen full of flak in cramped conditions. But there's plenty to shoot at and the going would be admirably challenging – considering this is a Japanese game – if it wasn't for the memory-card save option.

Ghost in the Shell is an enjoyable, if short-lived, 3D shooter made more desirable by its lavish presentation, featuring over ten minutes of new animation by the original animators and music courtesy of techno exponents such as Hardfloor and CJ Bolland. It's just a shame that Sony, in trying to get as much as possible for its money, forgot to produce a game that actually had something in keeping with the licence it spent it on. E

Edge rating:

Seven out of ten



They may look impressive, but the mechanical bosses have attack patterns that are easily learned

Format: **PlayStation**	Publisher: **SCE**	
Developer: **Exact**	Price: **¥5,800 (£30)**	Release: **Out now (Japan)**

Tetrisphere







As well as a oneplayer mode (above), *Tetrisphere* also allows two players to go head to head (top right). Cute graphical effects sometimes come into play (right)

Watching another human being play *Tetrisphere* is like trying to fathom Vulcan Chess or holographic *Missile Command* – one of those unconvincing future entertainments that science fiction cannot get quite right. Those doubts never completely disappear, but the N64 has acquired another so-so title that's perfectly summed up as a 'diversion'.

The playing field is a sphere of several onion-skin layers, each layer composed of tessellating tile blocks in myriad shapes and colours. The first five letters of the name is pretty much all that *Tetrisphere* has in common with *Tetris*, as this is really a three-dimensional variant on the likes of *Columns* and *Puyo Puyo* where blocks must be removed in chain reactions. The shadow of the player's next assigned shape rests in the centre, and by rotating the sphere to position it over an identical tile it's possible to remove all adjoining blocks of the same shape and colour. If no chains exist, blocks can also be slid into whatever space has been cleared.

Further tactics are unveiled in the ability to cause 'slow' chain reactions. This allows time to set off another reaction elsewhere on the sphere before the first ends, and the combined total block count (embarrassingly referred to as a 'combo') earns varying strengths of magic with which to remove substantial portions in one special attack. The ultimate goal is to blast a path to the core, although the thoughtful array of modes and options can provide more diverse challenges.

Doubts arise when *Tetrisphere* is compared to simpler, less elaborate puzzle concepts. With the likes of *Puyo Puyo* it's possible to work to a rough long-term strategy. *Tetris* itself has a number of edge-placement tactics to learn. But *Tetrisphere*, being so graphically sophisticated, remains unpredictable beyond the mastery of a couple of basic techniques. It's quite impossible for a player to hold the whole 'board' in his head, so to speak, even though only part of it is visible at any time. Planning ahead is a hopelessly ambitious task.

To make up for that simplicity, *Tetrisphere* ups the speed and punishes harshly for errors. The bizarre consequence of this fast and frantic playing style is an odd resemblance to *Tempest 2000*, being immersive, engaging, abstract, desperate – even down to the pulsing old-school techno BGM that sets the pace.

It isn't going to supersede the original *Tetris* in anybody's appreciation, but *Tetrisphere* does share that capacity to draw players away from ringing phones and boiling milk pans for a session in which time appears to dilate. Science fiction indeed...

Edge rating:

Six out of ten





The puzzle game is but one genre that the N64 still lacks a sterling example of – *Tetrisphere* is unlikely to reset the balance, despite some nice touches





Though the graphics hardly push the N64, it's difficult to see how else they could have been interpreted

Format: **Nintendo 64**	Publisher: **Nintendo**	
Developer: **H_2O**	Price: **$70 (£46)**	Release: **Out now (US)**

Marvel **Super Heroes**



Capcom's addition of playfields which scroll vertically as well as horizontally allows for aerial assault manoeuvres



Reflecting the colourful nature of the comic-book characters it features, *Marvel Super Heroes* is a heady cocktail of pyrotechnic effects and outlandish special moves. Iron Man fires screen-long blasts of photon cannon; Blackheart summons strange apparitions to overwhelm opponents; ultimate 'boss' character Thanos engulfs assailants in flames

While basic moves are accessed by familiar stock-in-trade pad combinations, the more outlandish attacks can only be utilised through moderately complex sequences, something *SF Alpha* aficionados will grasp with ease. With some assaults filling virtually the entire display, mastering a character is particularly satisfying.

To counter the potential imbalance such wild attacks could create, Capcom has increased introduced vertical scrolling to complement the horizontal. Traditional jumps (and the assorted attacks they support) are present as ever, but by pressing down followed by up or tapping the left shoulder button, players can launch their character skyward. An indicator appears, revealing the off-screen foe's position and, by judging descent in accordance with this, accurate falling attacks are possible

Marvel Super Heroes' airborne brawls are a great feature, and one beat 'em up fans will find surprisingly easy to master. With players able to use special moves and throws while aloft, it allows the smaller characters lacking large-scale projectile moves to compete on level terms. It also prevents play from degenerating into a tit-for-tat exchange of arbitrary long-range specials.

Another key addition is the ability for players to collect and use power-up gems. There are five in all, each capable of boosting abilities such as speed and damage resistance. Purists may find the concept distasteful, but it's a novel aspect that doesn't intrude upon core gameplay.

MSH also supports another type of power-up – the Saturn RAM cart. Launched in Japan as a package, the two combine to offer a stunning, near arcade-perfect experience. Shorter loading times and additional frames of animation are the principle benefits, but some players claim an actual increase in gameplay speed. If such an increase exists, however, its bearing on play is negligible.



The size of the larger characters in *MSH* is particularly impressive. Naturally, though, their strength is offset by their comparative lack of speed

Along with the lack of *Alpha*esque refinement of character-vs-character balance, it's noteworthy that *MSH* occasionally hiccups in its efforts to maintain a steady frame rate. When two of the larger characters do battle, the occasional judder is an unfortunate side effect of large-scale sprite manipulation. But, again, gameplay remains unaffected, and it's unlikely any other than die-hard fans of the arcade original will find it a distraction.

Loading times are *MSH*'s main weakness, while – unsurprisingly – its twoplayer mode is its strength. An option is provided to replace front-end presentation screens with simple text, thus cutting disc access, but the delay is still just long enough to irritate. Without the RAM cart, Virgin's November UK release could be a disappointment. Even without such peripheral enhancement, though, *MSH* remains a very fine beat 'em up.

Edge rating:

Eight out of ten



As in previous Capcom beat 'em ups, throws form a large part of close-quarters combat that larger, less agile characters excel at

Format: **Saturn**	Publisher: **Capcom**	
Developer: **In-house**	Price: **¥5,800 (£30)**	Release: **Out now (Japan)**

SNK's new 64bit board offers 4x4 racing and weapon-wielding Samurai warriors

Round Trip



The most impressive feature in *Round Trip* is the game's highly detailed and realistic-looking backgrounds. The cars' handling is also accurately conveyed, yet racing 4x4s was never going to be an exhilarating ride...







To add to the realism that SNK has striven for, several major vehicle manufacturers feature prominently throughout the game



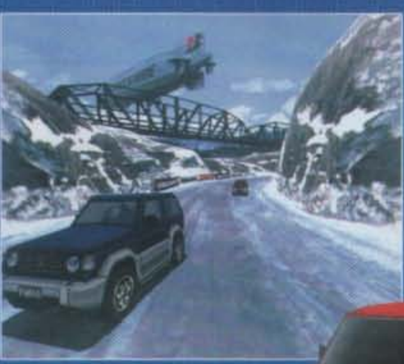
The game's cabinet will offer the usual surround-sound and force-feedback features

Given that the driving game is the dominant coin-op genre, where its implementation often represents the technological benchmark, it's little surprise that SNK is using the format in the first workout for its Hyper Neo-Geo 64 board.

Round Trip (which will be released under the title *Road's Edge* outside Japan) is a racing game which, rather than depicting high-end, cranked-to-the-max sports cars screaming around polygonal courses, attempts to distinguish itself from its myriad rivals by introducing the concept of racing family-sized 4x4s which would appear more suited to a Sainsbury's car park than a racetrack.

In SNK's offering, players will be able choose one of three cars – a Mitsubishi Pajero, a Toyota Hilux or a Land Rover Discovery V8IES. On each course, alternative routes can be taken, as in Konami's *GTi Club*, resulting in a variety of different surfaces, the level of force-feedback steering changing in accordance with the onscreen action. Up to four cabinets can be linked for multiplayer action, with two views and four music tracks available for selection.

Although *Round Trip* features excellent car models and some impressive backgrounds, with a pleasing amount of variety, the game does appear rather sluggish. While this may be in keeping with the type of vehicles being driven, SNK may find it hard to compete successfully against the comparatively full-on nature of its competitors. E





Unsurprisingly, the racing in *Round Trip* will take place in a variety of typical off-road conditions, each capable of wildly affecting the vehicles' handling characteristics

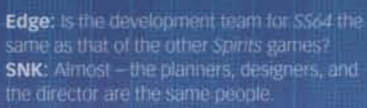
Developer	SNK
Release	TBA (UK)
Origin	Japan

Samurai Spirits 64



SNK's biggest problem with this 64bit game was turning the original *Samurai Spirits* characters into fully fledged 3D

Apart from *Round Trip*, *Samurai Spirits 64* is currently the only other game announced for SNK's new Hyper Neo-Geo 64 arcade board. **Edge** spoke to the Japanese firm, famous for its 2D beat 'em ups, about its latest fighting extravaganza...



Edge: Is the development team for *SS64* the same as that of the other *Spirits* games?
SNK: Almost – the planners, designers, and the director are the same people.
Edge: And how big is the team?
SNK: Around 20 worked on the project, which is more than on any of the previous versions.
Edge: Were they already 3D programmers?
SNK: No, they had almost no 3D experience.
Edge: Is *Samurai Spirits* 64 a true 3D game?
SNK: Yes, but to maintain a high visual quality we used some of the numerous 2D effects available on the Hyper Neo-Geo 64.
Edge: How similar is it to previous versions?
SNK: The visual approach and the atmosphere haven't changed. The characters, the Angry gauge and the fighting system are essentially still the same. Players used to *Samurai Spirits* should be able to adapt to this version easily.
Edge: What has changed in gameplay terms?
SNK: The game uses a combo system, which is pretty standard in today's 3D fighting games, but we also developed a new system which allows the player to change an attack while performing a combo. There's also a new 'free-dash' button, allowing the character to perform more strategic movements. The basic character commands are essentially the same, but some special attacks have been improved and new ones added.
Edge: When did work start on the project?
SNK: Development started a year ago, but work on the software began last November.
Edge: And how difficult was the move to 3D?
SNK: The most difficult aspect was to turn the character design into 3D. Rather than starting from scratch, we had to keep the same 2D characters and turn them into 3D. With certain characters, for example, we didn't want to represent their hair using polygons... It was very difficult.
Edge: Who developed the Hyper Neo-Geo 64?
SNK: Kazuhiro Kono was the project manager.
Edge: And whose technology is the board based on? Is it an internal development?
SNK: Not all of the board was designed at SNK. Other companies have also contributed to its development.
Edge: What do you see as its strengths?
SNK: Because of our know-how, we think the board would benefit almost any sort of 2D game, but it is equally at home with 3D, network or high I/O games.
Edge: How do you think it compares to more Sega's Model 3 or Konami's Cobra board?
SNK: The concept is different, so there's little point in drawing comparisons. E



Although *Samurai Spirits 64* is chiefly presented in 3D, SNK has also made use of many 2D effects offered by the Hyper Neo-Geo 64 board

Many of the characters from the original game have made the journey to this 64bit version



The quality of *SS64*'s backgrounds vary, some being more impressive than others

Developer	SNK
Release	TBA (UK)
Origin	Japan

Gallery

Last month's cover game, *Blade Runner*, takes pride of place in **Edge**'s 50th issue Gallery, while Psygnosis' *F1 '97* brings up the rear. This month also features the first reader CGI following the invitation in issue 47...

This image is from VIE's forthcoming adventure, *Blade Runner* (see **E**49). The game draws heavily upon the visual reference material provided by the movie and the sketches and design documents of renowned futurist, Syd Mead.

Lead artist Aaron Powell has watched Scott's seminal sci-fi movie perhaps more times, and more closely, than anyone else on the planet. 'There was very little original material left over from the sets and documents associated with the shoot, so I had to get almost all my visual cues from the laserdisc of the movie,' he explains. 'I watched that thing over and over, frame by frame, made sketches myself and tried to piece together the techniques used to build these amazing sets. The characters, too, have a distinctive style. The thing you have to remember about "Blade Runner" is that the whole thing is a weird retrofit evolution of what we have today. It's a real melting pot of styles.'

All images rendered using *3D Studio Max* by Westwood Studios artist Aaron Powell

McCoy, *Blade Runner*'s central character (players hoping to play Deckard are in for a disappointment), is constructed from more than 200,000 polygons, although this is reduced in-game to a still-impressive 32,000. The key, says Westwood, is to keep all the polys as small as possible. This affords the necessary detail and keeps the frame rate high.

'If anything can be said about "Blade Runner",' says Westwood VP Louis Castle, 'it's that the sense of place, the richness and detail, the layering of sounds and immersiveness of the onscreen environment was extremely convincing – so much so that here we are, 12 years later, and it still holds up. That's a huge thing to try to live up to.'



Lucy, one of the characters in the game, is obviously closely modelled on Pris, the Nexus 6 Replicant from the movie. Westwood's *Blade Runner* presents all the scenes and gadgets from the film, without clashing with the original storyline.

This image (right) comes from the opening sequence of Psygnosis' *F1 '97*. Created by Halli Bjornsson of Bizarre Creations (the developer behind the game), it is an excellent example of how a normally static and clinical medium can reflect both motion and mood. To achieve the bold lighting effects, Bjornsson used the *Mental Ray* package – ideal for volumetrics – and then touched them up using, naturally, *PhotoShop*.

Image rendered using *Softimage 3.5.1* and *Mental Ray* on an Integraph Quad Pentium by Halli Bjornsson of Bizarre Creations





The detailed image (above) was also taken from *F1 '97*. The artist, this time, was Mark Akester, who remarks: 'I positioned the car to make it look as if it's braking into a corner and struggling to maintain grip. Even though the conditions are wet, the sky is brightening up and the sun is coming out. Well, an overcast sky wouldn't suit a bright, attractive mag cover.'

Image rendered using *Softimage*, *PhotoShop* and *Painter* on a Quad Pentium by Mark Akester of Bizarre Creations



Once again created by Mark Akester, these *F1 '97* renders (left, below) feature much of the geometry used to create the backgrounds in the game itself. The cars in the foreground are made up of approximately 30,000 polygons, those in the back only 500. The red Ferrari (left) was created by Bizarre's Steven Heaney, who used *PhotoShop* to generate the glowing disc-brake effects

Images rendered using *Softimage* and *PhotoShop* on a Quad Pentium PC by Mark Akester and Steven Heaney of Bizarre Creations



Cover versions

Edge's Gallery opens its doors to ambitious CGI artists, allowing them to share their work with the magazine's readership. To have your work featured on these pages, create a two-image set in the same fashion as **Edge**'s inside-cover artwork and send them to 'Incovers' at the usual address. Each artist featured wins a free **Edge** sub

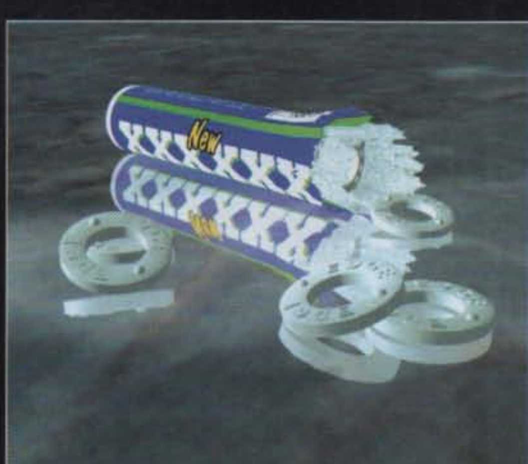
Following Edge's call for readers to send in their own examples of CGI art, several entries of note have been received.

This image, from Simon Dew of Kidlington, Oxford, possessed little ingenuity but still demonstrates that the planning of a series of images is as important as the legwork that goes into rendering them.

More in-cover images will be published soon.

Produced on a PC using *3D Studio Max* and *PhotoShop* by Simon Dew (sdew@acute-force9.co.uk or www.acuteforce9.co.uk)





Street Fighter Collection



Capcom has announced a new retro compilation which gathers together three of the key titles from its seminal *Street Fighter* beat 'em up series.

Street Fighter Collection, which consists of *Street Fighter II*, *Super Street Fighter II Turbo* (Saturn version, above, PlayStation, below) and *Street Fighter Alpha 2* (PlayStation version, bottom), should be available on Japanese import, on both formats, by the time you read this.

Both 32bit versions are believed to be just about arcade perfect, and should prove lucrative for Capcom in the Japanese market, at least, where beat 'em up-crazy Saturn owners are legion.

No news yet on a UK release, although Virgin may pick up the title to publish here later this year.







Legend of the Mystical Ninja

As the blue-haired hero Goemon becomes realised in full 3D form on the N64, Edge looks back on his humble 16bit origins







The game featured dozens of distinctive enemy characters (left). Perhaps its strongest feature was just how much was packed into eight megabits – including the entire first level of *Gradius* as a subgame (right)

When Konami made the brave decision to translate *Ganbare Goemon* and release it as *Legend of the Mystical Ninja* in the west, few gamers could have known what to expect. What they found was a title so resolutely Nipponese in its approach that it was unafraid to try absolutely *anything* in its pursuit of delivering entertainment.

As well as giving Goemon (a pudgy fellow with a shock of blue hair) and Ebisumaru (his even pudgier comedy sidekick) the more digestible monikers of Kid Ying and Dr Yang, Konami also had to tone down some of the game's more risqué content for the more sensitive western market. Fortunately, everything else stayed much the same.

An action game with RPG aspirations, *Mystical Ninja*'s structure saw players first exploring villages in which clues, items and, most entertainingly, bonus-game diversions, including lottery, horse racing and maze games, then moving on to enemy-packed platform-based sections.

Mystical Ninja encapsulated everything that was exciting about the birth of 16bit consoles, using of bold colours, a fantastic oriental soundtrack and setting a standard for imaginative design that has rarely – if ever – been seen since.

Publisher: Konami	1991	No 20
Developer: In-house	SNES	

DEVELOP

VIDEOGAME DEVELOPMENT UNDER THE MICROSCOPE

Creating and running a game development studio: part 2

Although employing staff, finding an office and buying equipment are all vital to setting up a development house (see **Edge** 49), the most important thing a software company can do when it starts up is develop a marketable product. Of course, a sparklingly original game idea would be good, but it's not strictly essential. What the studio head needs to do is persuade a publisher that game X will sell by the thousand and make everybody a lot of money. Which, as anyone who has watched the industry over the last five years can testify, is very different from having a sparklingly original game idea.

Opinion on what makes a successful game is divided. Eidos MD **Ian Livingstone**, for example, insists that originality is still more important than coming up with the latest *Doom* clone: 'The market is more and more hit-driven, with sequels dominating the charts, so establishing new titles is tough and takes a lot of promotion and PR. However, it is essential that small teams create original concepts and establish new genres to have any chance of survival.'

Ocean's UK head of marketing, **Andy Hughes**, is more sanguine about the need for originality. 'The gaming markets these days have moved into a new era. Originality is still as important as ever before, but development teams must understand that not all great new ideas are commercially viable. An understanding of the market and its ability to accept certain genres of game and a real commitment to the project is essential.'

Mark Cochrane at Psygnosis is slightly more lyrical. 'From the concept perspective, we look for originality, content, technology, look and feel, feasibility and marketability. You can look at it like baking a cake. All the ingredients must be there in the right amounts, but – and this has never been more important – it also needs to be put in the oven for the right amount of time. In a team, we look for ability, experience, structure and organisational skills, not forgetting the interpersonal element.'

Whatever the case, this process of persuading a potential publisher of a new game's qualities is a protracted and complex one. It is, for example, becoming more and more common for publishers to demand storyboards, plus lengthy design documents, sketches, animations and suchlike, all of which should be presented by someone looking suitably smart and businesslike.

Which is where the designer suits and spreadsheets come in, and where it's advisable to leave the scruffy creative types back in the office doing what they do best. The cost of developing games has escalated at an alarming rate, and publishers are very keen to put a price on what they sign. In fact, even before an expensive Armani is donned, the studio head will have to sit down at his PC and meticulously prepare a business plan. Salaries, rent, rates, equipment costs, software costs and, in fact, anything at all that is going to cost money, has to be included. Consider this: a medium-sized development studio can spend about £700 a year on coffee. This all needs to be tied in to the schedule, so that if the game is going to take 12 months to develop, the plan needs to cover that entire period, and possibly even more, as the game will undoubtedly slip.

But even this effort may not be enough. Because the contemporary videogame market is intensely competitive, and development is an expensive process, producers are



DMA's fine track record in the videogame industry made it an extremely attractive proposition to Gremlin

wary of companies with little experience in the field. 'A past development history is important,' confirms Hughes. 'It's not that new teams can't make great games, but past projects and market releases show that they can hit deadlines and produce market-worthy product. This gives publishers the confidence to invest in the future of the team and ultimately the game. It's certainly a trust situation for both parties.'

With a great deal of luck, however, a contract will get negotiated, which should include a royalty as well. The latter is vital because it is where the real money is made – the advance, no matter how generous it looks, will only ever cover the cost of development.

Once the contract has been signed, it's tempting to believe that the rest will be plain sailing. Sadly, that's not the case. True, there may well be a honeymoon period during which the publisher thinks the sun shines out of the developer's behind, but publishers are notoriously fickle and their marketing departments even more so – both know very well that today's hot ticket could well be tomorrow's garbage. A deal may have been signed and the game agreed on, but that all counts for nothing if the product looks as though it is sliding toward the garbage end of the scale.

The smart tactic is to keep external development and marketing well informed about the progress of the game. Essentially, it has to be marketed internally so that the marketing department is sufficiently interested to promote it externally. It's an unfortunate fact, but if marketing hates the game, it's scuppered. This may sound like an odd fact, but as Hughes states, 'Any development team that doesn't understand the importance of marketing and constructive PR will struggle. In today's markets, both disciplines are vital to massmarket success.'

At this stage, the quality of the game is fairly immaterial. All the studio head needs to do is court the marketing department with phrases like, 'This game is the next best thing to the second coming.' Once they're on board, they go off and repeat the mantra to the gaming press, leaving the developer to get on with producing what, all being well, will turn out to be a good game.

Even with marketing on board, the studio will no doubt face a number of crisis situations before the game is finally completed. The most likely is that a game vaguely similar will appear beforehand. This will inevitably cause external

development and marketing to get a little concerned and start asking if visual effect X or gameplay feature Y can be added. Then they'll start insisting on it, arguing that the game will sell nothing unless the studio complies. The studio head must be prepared to accede to these demands and still meet the deadline.

Getting a demo ready for a trade show is another potential problem area. Again, this has to be achieved in plenty of time, because one of the publisher's directors is bound to see it and 'suggest' that a little something is added – usually the kind of 'little something' that takes at least four weeks to implement.

Preparing a demo for an internal publishing review is a similarly unpredictable challenge. Here, the studio head will have to stand well back as the game gets torn to pieces and the producer comes up with some 'essential gameplay elements/visual effect' that necessitate throwing away several weeks of work. Worse still, the studio head will then have to summon the balls to tell the programmers and artists about the changes.

However harrowing this rollercoaster process may sound, coming up with the goods on time is always the crucial factor for any development house, as Psygnosis' Mark Cochrane makes clear: 'If, during an initial dialogue, a developer says that they will send a demo for a proposal next week and it doesn't actually show for four weeks, it is likely that the team has no organisational skills and a disregard for deadlines. Psygnosis would be unlikely to pursue a development relationship with such a team. A bad team is one that promises the earth and delivers nothing.'

Getting the game into the test phase reveals a whole new catalogue of woes. Prepare for a daily barrage of faxes detailing bugs, gripes, whinges, impossible wish lists and additions. Stay far too late repeatedly trying to get it mastered, and then, finally, relax momentarily while the game hits the market. The keyword here is 'momentarily' – the studio must now prepare itself to write the first of an indeterminate number of patches to fix all sorts of little quirks that somehow didn't manifest themselves in the exhaustive test phase.

All being well, the game will hold onto something close to its recommended retail price for a few weeks and sell well enough to bring in some hard-earned royalties. If it does do the business in the shops, the publisher will congratulate itself for having pulled off a marketing coup and the developer may well get a placatory pat on the back as the marketing director parades around like a world heavyweight boxing champion. However galling this may be, the payoff for the development team (as well as the royalty cheques, of course) is ultimately the knowledge that their much sweated-over vision of videogame perfection has made its mark on the shelves of Electronics Boutique. As Ocean's external development director, **Gina Jackson**, says: 'The advice that I would give to a developer is to be realistic and be true to yourself. Don't give the publisher what you think they want; do what you believe in.'

Pure Entertainment's *Respect Inc* looked interesting enough, even at this early stage in its development, to be brought up by giant publisher Eidos. The company's MD, Ian Livingstone, rates small, innovative softcos highly

GREAT ESCAPE

escape
video compression systems

As predicted way back in E30's Techview, Eidos' investment in digital video compression, through its Glassworks arm, is finally about to pay off. Its *Escape Videostudio* software provides arguably the best software-driven digital video solution for the PC and Macintosh and is being targetted at developers of interactive entertainment and CD-based presentation. If it makes the licensing/pricing of the Codec unprohibitive it could well see the company overtaking its rivals in the interminable battle to provide the best software video compression.

***Escape* has been used for the video compression and playback for this month's cover CD and delivers an impressive 25fps update which is even maintained in full-screen – witness the Game.com advertisement when quitting from the CD for a glimpse of the quality at this resolution. But Escape is also scaleable to different platforms, data rates, screen sizes and frame rates, and boasts a wide range of editing, playback and realtime special effects features. It's also compatible with PC and Apple *QuickTime* software as well as Microsoft's DirectX API.**

Eidos Technologies, tel: 0181 636 3000, or www.eidostechnologies.com

(viewpoint)

EXPRESS YOURSELF IN EDGE – WRITE TO: LETTERS, EDGE, 30 MONMOUTH STREET, BATH, BA1 2BW (email: edge@futurenet.co.uk)

Gamers are to blame

First, as someone who has been involved with the games industry for about ten years (in one form or another) it never ceases to amuse me that people constantly bleat on about the lack of imagination and originality in today's titles. Well, whose fault is that? Let me tell you – yours, the great gameplaying public! Why? Because people keep buying the same old tat time and time again. This year's update of *FIFA*? Oh yeah, we'll have that! *Virtua Fighter 7*? Ker-ching! Yet another bloody racing game? When will it end? When people wake up and realise they're being taken for a ride. Thanks God for the likes of Bullfrog, that's what I say.

Second, the retro craze. There's a real risk that although a lot of classic games are destined to make a reappearance, a whole lot of dross is going to be dredged up from videogaming hell. In the rush to reclaim this industry's rich and colourful heritage, some money-grabbing buggers are going to relaunch collections of such 'masterpieces' and watch as the moolah rolls in. Word to the wise is all, but while I'm on the subject, 64bit updates of *Virus*, *The Sentinel*, or even *Elite* certainly wouldn't go amiss...

Third, a terrifying situation for which both **Edge** and Nintendo should receive a damn good kicking. Okay, so chip prices/development costs/marketing and production push the cost of a cart through the roof. Thank the greedy bastards at Nintendo for that. But how the photon can you justify giving *Turok* nine out of ten with a price like £70. Get real, this is Neo-Geo territory six years ago! Don't you guys consider the impact of pricing like this when you tot up the totals? Or is such a wallet-busting sum irrelevant? It might be an admirable game but this is just total insanity. Mark my words – wait until the first £100+ game hits the shelves and watch the games industry disappear up its own arse.

Apart from that, bloody good mag – and next time you see Jeff Minter ask him if he wouldn't mind doing a 3Dfx light synth.

Name and address withheld

Regarding your first point, what you're forgetting is that the majority of games are purchased by people who don't read the videogame press – the uninitiated gameplaying public that flock to a license such as *FIFA* in the same way that hordes of people will flock to see a duff movie such as 'Speed 2' without checking out the panning it gets in a movie magazine first. This huge, uneducated sector of the market will always exist, and as long as a game has a big name associated with it then quality will rarely be an issue.

At the time of **Edge**'s review of *Turok* a retail price for the UK version had not been set. But its £70 price tag would not have affected the mark anyway. Many of **Edge**'s readers are used to paying high prices for imported games, where figures of £70 are the norm rather than the exception. Wherever possible **Edge** notes if UK games clock in at higher-than-average price – as was the case with countless Neo-Geo cartridge releases (and *Turok* when the price was announced the month following the review) – but the magazine judges products for their overall content and entertainment they deliver, and unless something is particularly shortlived and easy to complete, pricing is subjective. After all, a £90 import price tag hardly affected the review scores given to *Street Fighter II* when it appeared on the SNES five years ago...

The ethics of emulation

I think you are correct in your statement that the people creating and using emulators are fans and not pirates. After all, very little money, if any, is changing hands. The majority of the emulator programs are free, and every ROM website makes them available for nothing. In short, no one is getting fat on them.

These people know they are breaking the law, however, as they cover their pages with copyright statements and disclaimers. Although I genuinely think that the big boys such as Sega and Nintendo are not losing significant amounts of revenue as Mega Drive and NES games are not being bought at full price in large volumes any more. Generally, second-hand shops and market stalls are the only businesses reaping cash from these formats.

Besides, what sort of person other than a game fan would spend a good hour downloading emulation software and ROMs, fiddling about with DOS and *Windows* attempting to get them to work and then playing the games on a tiny size in the middle of their monitor, often without sound? Granted, you could take the ROM image and duplicate pirate cartridges with it, but very few people I know have resources like a ROM burning setup! Besides, I could walk into my local junk shop and buy *Sonic* for £6, so any rogue wanting to sell this game would have to beat that price. Not very economically viable for Mr Pirate.

Finally, a grey area exists in regard to the PC Engine. I always wanted one, but because it was never officially released in the UK and I was a broke schoolboy at the time, I couldn't afford the import prices. Now thanks to *Magic Engine* I can discover a period of gaming that I missed before.

They may be legally questionable, but emulators are a fascinating peek at yesteryear, not fuel for fraud.

Mark Paterson, Sheffield

Crossing over to the dark side

In the September issue of **Edge** Phil Ford writes something about 'crossing to the dark side' and buying a PlayStation. My answer to him would be: what are you waiting for? I know lots of people who own both consoles, and your problem with finding good games (or new games at all) would be solved.

But the reason why I'm writing this is that I see he is 34 years old. Well, I'm 28, and completely satisfied with my PSX. Of course, many PlayStation games suck, but some are eye-popping. *Resident Evil* alone is a reason why you should buy a PSX, not to mention *Tomb Raider* (although not personal fave) or *Tekken 2*.

But in my humble opinion: *Resident Evil* is a masterpiece. It combines horror, action and RPG in a terrific game, and something is rotten in Denmark if it will not be released for the N64, too. But my advice right now is this: put the N64 in a closet for six months and buy a PlayStation and a copy of *Resident Evil*. It wouldn't be that expensive considering his – in his own words – 'relatively high standard of living'.

Dan Frunza, Denmark

A world of clones

I have to comment on the unfairness of what **Edge** said about Nintendo's presence at E3. Running out of ideas? Hardly. Despite *Banjo-Kazooie* and *Conker's Quest* looking familiar to *SM64*, it's wrong to call them clones a such. We must remember that *SM64* started a new genre of gaming – the 3D platformer. There will be hundreds of 3D platformers similar to the way there are hundreds of racing games and first-person shooters. If **Edge**'s remarks are correct, that *Banjo-Kazooie* and *Conker's Quest* are simply labelled 'clones', then indeed just about every new game is a 'clone' of a past one. And now that 3Dfx has arrived, the PC is heralded as a fantastic games machine. Yet all we see are fancy graphics and little originality, something that Nintendo is trying to cure in the over-crowded gaming industry by starting a whole new style of gaming.

Joe Kenny, via email

You make a valid point but **Edge** was merely highlighting just how similar the gameplay and themes in Rare's E3 duo seemed to be to Nintendo's classic. The biggest problem assessing *Mario 64*-style games surely has to be that the initial benchmark it set was so incredibly high. Most games that try to branch out into new areas usually carry gameplay deficiencies that are gradually ironed out as more 'clones' perfect the formula. *Mario 64* singlehandedly defined a new direction in platform games with incomparable variety and sophistication, and as a result no games company has yet come close to achieving what Nintendo has.

A shaky stick

Thanks for the feedback (Viewpoint **E**47). However, you seem to have got the wrong end of the stick that I was shaking. It was not *your* 'wide eyed adoration' of *Mario 64* that I was referring to, it was John Braithwaite's. His letter brought into question the integrity of the entire ▶

N64 software catalogue, and this is why I felt justified to mention titles such as *Shadows of the Empire*, *Cruis'n USA* and *FIFA*.

What I find exasperating are the constant stream of versus arguments that stretch back further than the C64/Spectrum debates I can remember. All this nonsense can be summed up in one word – angst. You're either happy with the system you've got or you're paranoid that someone else is having more fun than you. Either way, isn't it about time this pointless yakking and whining ended?

Patrick S Cowan, Edinburgh

Sega's last stand

The remainder of '97 shall be a decisive time in the computer games industry – but most notably for Sega. The Saturn's market has virtually disappeared in one fell swoop as the PlayStation and N64 are perceived as being superior. The Saturn upgrade is therefore crucial, as it could conceivably give the Saturn a new lease of life, but only if it meets strict criteria. If it is to be successful it should be available at a general market price, ie the price of a game, and certainly no dearer than an N64 cartridge. This would most likely mean that the *VF3* upgrade package would be sold at a loss – but such is the price Sega must pay if it is to retain credibility.

If the upgrade can truly render *VF3* at a standard comparable to the arcade, it will provide performance higher than anything the PlayStation has to offer and should at least compete with first-generation N64 software. The upgrade must be embraced by the development community, though, for if Sega has not yet learned that in-house software is not enough to sustain a console, the upgrade may be the last piece of mass-produced hardware Sega will sell.

Paul O' Ciadha, Dublin

There is little news about Sega's *VF3* upgrade to report and current feeling seems to indicate that its Model 3 beat 'em up is being saved for its next console launch. Certainly, industry experts that **Edge** has consulted believe that the company had problems integrating the technology into a Saturn cartridge and then exploiting that through the machine's internal architecture.

The art of the arcade

To me the great mystery of the industry is the difference between the home and arcade markets. For the home market, producing triple-A games is a tough challenge, and even the greatest publishers can lay expensive eggs. Look at the Atari Jaguar. It was the right product at the right time and all they had to do was to produce six or seven must-have killer games. Not only would Atari have saved itself, but the world would have been its own. But not even when its depended upon it – not one killer game.

The Nintendo 64 is the same story in reverse. The entry of Sony into the market left Nintendo way out of position. Launching into the market late it was arguably one game – *Mario 64* – that allowed Nintendo to recover so much lost ground.

And yet the arcade market always manages to stay one step ahead, able to produce killer games time and time again. Producing seductive and instantly playable titles, the arcade giants rarely put a foot wrong. Even the home versions are never as good as the originals. While the technology of the home consoles is impressive it is only now we are seeing arcade-perfect conversions of *Defender* and *Pac-Man*. Will it take another ten years before we see arcade-perfect conversions of *Killer Instinct* or *Daytona USA*?

Paul Johnson, West Midlands

The level of R&D in the arcade industry is far higher than in the consumer platform markets and this is one reason why there are few major coin-op flops – there's too much money involved for the companies to risk taking chances. But don't forget that many arcade games are too shallow to work in the home without major improvements, and companies such as Namco and Capcom have made conscious tweaks to titles being converted for the home.

Another bitter PlayStation owner

As a longstanding reader of your magazine (since **E**1), I have come to the conclusion that **Edge** has indeed become – dare I say it – biased towards the N64.

I am sure that you will immediately think that I am just another bitter PlayStation owner. However, as I own both hardware platforms I feel that I can express this view without any malice. It is not that there is any one particular instance where I have thought 'There they go again putting the PlayStation down!', it is more a case of continual demeaning over probably the last ten to 15 issues.

As for my own opinion, I think both machines are superb pieces of hardware but if push comes to shove my allegiance will always lie at the door of Mr Tokunaka.

Name and address withheld

Once again for all readers who somehow still haven't got the message yet: **Edge** does not favour any particular machine – but it does deliver praise and criticism to companies wherever due. In the case of Nintendo this means that the company and its console have received favourable coverage because of its relentless commitment to releasing games of high quality. Sony and its PlayStation, on the other hand, have favoured less well recently, and the magazine has reacted accordingly. Do not interpret this as unreasonable bias – it is simply open-minded reporting for which **Edge** has become renowned.

(QandA)

SEND QUESTIONS TO Q&A, **EDGE**, 30 MONMOUTH STREET, BATH, BA1 2BW.

Q **1.** Why is a game like *GoldenEye* being released in Japan first, followed by the US before the UK? The game is developed in the UK, just like *Micro Machines v3*, which was released in the UK first.

2. Does Nintendo hold the patent on the D-pad ? Is this why Sega uses a circular disc and Sony uses a divided cross?

Ken Wong, address withheld

A **1.** Just as *Blast Corps* received a launch in Japan before the US, so too will *GoldenEye*. Why? Simply because NCL says so. It's not worth buying this version unless you have a good command of written Japanese – the game features a fair deal of text.

2. The existence of the same kind of device on numerous other joypads from competing companies implies that no patent exists for the D-pad, but its analogue controller design is believed to be a closely guarded – and patented – property.

Q I am about to purchase a standalone 3D accelerator card and I have a P133, an Intel Advanced/Marl ATX motherboard, a 2Mb Matrox Millenium graphics card and a SoundBlaster 32. Which card would you recommend?. At the present time the choice is between a 3Dfx-based card or the Apocalypse 3Dx. I understand there is little performance difference between the Diamond Monster and the Orchid Righteous cards, but I have heard rumours that because of the pass-through cable they use, the screen display is degraded in some way. I have also read that the Orchid makes an audible click when working, which the Monster does not.

Finally, is it true that when the 3D accelerator is not in use, its presence can hamper the performance of your 2D card?

Glenn Caulton, via email

A Voodoo-based cards are connected to the 2D card via a cable, and overlay a 3D display on top of the *Windows* desktop. This means that it isn't possible to play games in a window – an advantage that its main rival the VideoLogic Apocalypse 3Dx has. Voodoo Rush, 3Dfx's 2D/3D combination card, addresses that problem, but support for this is still a grey area.

Edge has heard no rumours of 2D cards being degraded by a 3D card such as 3Dfx, but the Orchid Righteous card does make an audible click when software boots up. It is hardly noticeable, though.

At present, 3Dfx still has the edge in terms of developer support but VideoLogic's presence is growing steadily and can't be ignored. Due to the processor-dependent architecture of the PowerVR card, **Edge** wouldn't recommend VideoLogic's technology for PCs below P200 spec.



Racing Jam © Konami 1997

Next issue, **Edge** reports from two of the biggest gaming events of the year in Japan. The Tokyo Game Show and Amusement Machine Show (JAMMA) both take place in September and will effectively act as barometers for the current climate of the Japanese videogames industry. Expect a multitude of console developments and breathtaking advances in realtime coin-op CGI.

Edge 51 also takes an in-depth look at the Sega Saturn, a console which may have failed to command a market share big enough to worry Sony executives but now enjoys a cult status as a unit synonymous with the most hardcore gaming experiences available. As the format prepares to enter its twilight period, **Edge** looks at a much-derided machine whose potential has rarely been fulfilled but is nevertheless loved by gameheads the world over.

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